1998 HOV Annual Report Executive Summary

1998 HOV Annual Report

High Occupancy Vehicles

California Department of Transportation

District 7

Los Angeles and Ventura County

" Building an effective Traffic Management System to move more people, increase mobility, and provide trip reliability in the Southern California region".

October 1999

Caltrans

OPERATIONS DISTRICT 7

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ACKNOWLEDGEMENTS

The Annual High Occupancy Vehicle Operation Report is prepared by the Office of Traffic Management, HOV Unit in District 7. The information in this report encompasses all HOV lanes in Los Angeles and Ventura Counties.

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EXECUTIVE SUMMARY

The following is a summary of HOV operations for District 7 in 1998:

- By the end of 1998, Los Angeles County had 342 lane miles of HOV facilities, or 40% of the total 775 lane miles in the State of California.

- On average, HOV facilities in Los Angeles County carried 1100 vehicles per hour or **2800 people** per hour, during peak hours. These volumes well exceed the minimum expected volume of 800 vehicles per hour or **1800 people** per hour, as specified in the HOV Guidelines for Planning, Design, and Operations.

- On average, the person-trip volume of an HOV lane was 1.5 times greater than that of a mixed-flow lane during peak hours. (i.e., 1.5 regular lanes are needed to carry an equal number of people in the HOV lane.)

- The average violation rate was 0.85%, which is substantially lower than the preferable rate of below 10%, as specified in the HOV Guidelines for Planning, Design, and Operations.

- Since 1992, the total number of carpools on freeways with HOV lanes has increased steadily, whereas on freeways without HOV lanes, the total number of carpools has remained relatively constant or decreased. From 1992 to 1998, the data indicates an increase of 52% in the total number of carpools on freeways with HOV lanes for the morning peak 2-hour period. Significant increases in carpools were also observed in the afternoon peak 2-hour period. (For details, see tables and charts titled “Number of Carpools on Freeways” on pages 14-17.)

- On average, the peak hour volume was 10%, and the peak 2-hour volume was 24% of the daily HOV traffic volume, excluding the El Monte Bus Way data, which has the 3+ occupancy requirement.

- The average volume on HOV facilities during peak hours represents a level of service C, while most of the mixed-flow lanes have a level of service E-F during peak hours.

- The HOV facilities in Los Angeles County carried approximately 197,000 vehicles or **447,000 people** per day during 1998, which is an increase from 1997’s daily volumes by 30,000 vehicles and 66,000 people.

INTRODUCTION

HOV lanes have been in operation since January 1973, in Los Angeles County. The Route 10 HOV lane, known as the El Monte Busway, was a pioneer in determining the value of HOV lanes. It opened first as an exclusive busway, and later allowed 3 or more person carpools. Today, it accommodates over 80 buses and almost half of the people on the freeway, during the peak hour.

The minimum number of persons required in a vehicle is two to use HOV lanes, with the exception of the Route 10 El Monte Busway, and Route 91 Toll Road in Orange County, which require a minimum of three persons. Motorcycles, even those carrying just one person, are allowed to use the HOV lanes, by federal law.

In Los Angeles, HOV lanes exist on the freeway, and almost half of the metered freeway on-ramps. Motorists using the HOV lane on the on-ramps do not have to stop at the ramp meter, which is another incentive to rideshare. HOV lanes, for bus use only, exist on some local streets.

There are 859 ramps and 20 connectors that are metered in Los Angeles and Ventura Counties; of which, 320 have separate HOV bypass lanes, where the HOVs do not have to stop at the ramp meter signal. Ramp metering is one of traffic management's tools to regulate the flow of traffic entering the freeways during the peak traffic hours. Ramp metering will:

a. Smooth the overall flow of traffic
b. Accommodate more vehicles per hour on the freeway
c. Decrease commuting travel times
d. Increase safety on the freeway.

Ramp metering reduces traffic congestion on the freeway. This increases the capacity of mixed flow lanes and enables traffic to flow at greater speeds. The number of traffic accidents is reduced as well.

By the end of 1998, HOV lanes made up 32% of the total freeway length in Los Angeles County, which has a total of 527 freeway miles. Los Angeles County had 167 centerline miles, or 342 lane miles of HOV. In total Los Angeles County opened 25 centerline miles of HOV lanes in 1997 and 30 centerline miles in 1998. The Southern California region of 5 counties (Los Angeles, Ventura, Orange, San Bernardino, and Riverside) was reporting a total of 565 HOV lane miles, excluding the Route 91 Toll Road in Orange County, which is 40 HOV lane miles. Statewide, California had 775 HOV lane miles.

CHANGES IN 1997 -1998

The following is a list of the new HOV facilities, which opened in 1997 -1998:

- In March of 1997, 11.4 miles of carpool lanes opened on the Simi Valley Freeway (Route 118), between the Ventura County Line and Route 5.
- In April of 1997, 7.0 miles of carpool lanes opened on the San Gabriel River Freeway (Route 605), between South St. and Telegraph Rd.
- In August of 1997, 4.5 miles of carpool lanes opened on the Orange Freeway (Route 57), between the Orange County Line and Route 60.
- In September of 1997, 2.3 miles of carpool lanes opened on the Route 30, between Sunflower and Foothill Blvd.
- In February of 1998, 7.6 miles of carpool lanes opened on the San Diego Freeway (Route 405), between the Orange County Line and Route 710.
- In April of 1998, 9.9 miles of carpool lanes opened on the San Gabriel River Freeway (Route 605), between Telegraph Road and Route 10.
- In May of 1998, 6.4 miles of carpool lanes opened on the Antelope Valley Highway (Route 14), between San Fernando Road and Sand Canyon.
- In October of 1998, 6.1 miles of carpool lanes opened on the San Diego Freeway (Route 405), between Route 710 and Route 110.

BACKGROUND

Caltrans, District 7, has the most extensive HOV Program in the nation which will be adding carpool lanes to virtually every freeway in the Los Angeles area by the year 2010. The HOV projects are being designed and constructed using local Proposition C funds, and federal and state funds. The funds are being programmed and administered by the Los Angeles Metropolitan Transportation Authority.

The purpose of the HOV program is to reduce congestion, by using the capacity of the freeway system more efficiently, and to increase mobility in the region. We cannot build our way out of future growth and congestion, by simply adding more and more lanes. When HOV lanes were introduced in Los Angeles County, the HOV system was designed to:

a. Increase the person-movement capacity of the freeway
b. Be cost-effective, by reducing commute costs
c. Provide rideshare incentives, such as saving time and trip reliability.

The results of these goals improve air quality, conserve energy, increase mobility and efficiency of all trips, and reduce congestion. The central concept of the HOV program is to move more <u>people</u> rather than more cars. Even if you are not able to rideshare, adding HOV lanes will help your solo commute, by reducing congestion on all freeway lanes.

The HOV system is the backbone of a multi-modal transportation system. In providing an HOV system, Caltrans is providing the network necessary for the higher level mass transit systems in the future. The HOV system is also the least expensive method or alternative to accommodate economic growth and development.

It has been concluded that a significant growth in carpools only occurred on freeways that added HOV lanes, with the number of carpools remaining relatively constant or decreasing for those freeways without HOV lanes. Getting a solo driver out of his car is the biggest challenge, but Caltrans believes that the formation of a simple 2+ carpool is the first step toward higher levels of mass transit, which is the future goal of transportation. The reduction of drive alone is a complicated subject since new drivers join the freeway everyday and route diversion may account for some of the new carpools, instead of carpool growth. However, the Los Angeles freeways which have added HOV lanes, have shown a significant increase in the number of 2+ vehicles, with some HOV lanes carrying as much as 1500 vehicles in the peak hour. HOV lane users are saving at least 1 minute per mile, compared to mixed flow traffic during the peak hour.

STATUS OF HOV PROJECTS

LOS ANGELES COUNTY

ROUTE	E.A.	COST	FREEWAY MILES				
		$ (MIL)	IN	IN	IN	IN	OPENING
			SERVICE	CONST.	DESIGN	PLANNING	DATE
LA-10 17.0/28.0 Alameda to Elmonte		58.00	11.00				1973
LA-91 6.4/16.7 Rte 110 to Rte 605 E/B			---				6/10/85
LA-91 6.4/16.7 Rte 110 to Rte 605 W/B	115864	2.00	10.30				3/11/93
LA-105 2.2/18.2 Rte 405 to Rte 605		230.00	16.00				10/14/93
LA-405 SB 0.0/2.2 Bellflower to Rte 605	005854	4.50	2.20				10/2/93(6/97)
LA-405 13.0/20.7 Rte 110 to 120th St.	106734	8.30	7.70				4/8/93
LA-210 25.0/43.5 Rte 134 to Sunflower Ave.	129104	13.20	18.50				12/16/93
LA-405 20.2/22.2 120th St. to Century Blvd.	105 CC0	---	2.00				1/94
LA-91 16.7/20.7 Rte 605 to Co. line (S)	115834	0.90	4.00				11/94
LA-134 0.0/5.1 Rte 101/170 to Rte 5	120284	7.10	5.10				10/2/95
LA-170 14.5/20.6 Rte 101/134 to Rte 5	120274	7.90	6.10				2/11/96
LA-134 5.5/9.7 Rte 5 to Rte 2	107734	5.70	4.20				3/12/96
LA-210 HOV Ramps at Fair Oaks	019594	3.50	0.40				5/30/96
LA-110 9.8/20.5 Rte 91 to Adams Blvd.(Elev)		344.00	10.70				6/26/96(7/97)
LA-134 9.7/13.3 Rte 2 to Rte 210	118504	9.00	3.60				8/30/96
LA-405 38.5/48.6 Rte 101 to Rte 5	120334	15.10	10.10				10/22/96
LA-10 28.0/31.1 Baldwin to Rte 605 (S)	008061	5.40	STAGE 1				Median Barrier
LA-10 31.1/33.5 Rte 605 to Puente (S)	005881	3.40	STAGE 1				Median Barrier
LA-118 0.0/11.4 Ven Co Line to Rte 5 (S)	115054	22.40	11.40				3/7/97
LA-605 3.8/10.8 South. St. to Telgrph Rd.	119394	10.80	7.00				4/2/97
LA-57 0.0/4.5 Co line to Rte 60	115034	19.00	4.50				8/22/97
LA-30 0.0/2.3 Sunflower to Fthill Blvd.	119981	10.00	2.30				9/8/97
LA-405 0.0/7.6 Ora Co line to Rte 710 (S)	116874	24.80	7.60				2/12/98
LA-605 10.8/20.7 Telgrph Rd to Rte 10	119944	23.00	9.90				4/3/98
LA-14 27.0/33.4 SF Rd. to Sand Cny (S)	116204	23.20	6.40				5/5/98
LA-405 7.6/13.7 Rte 710 to Rte 110	115174	24.20	6.10				10/8/98
LA-60 23.0/25.4 Brea Cny to Rte 57 N	119234	5.00		2.40			2/2/99
LA-60 25.4/30.5 57 N to Co. line	115044	25.00		5.10			2/2/99
LA-30 2.3/8.3 Foothill Bl. to SBD Co. Line	105010	264.00		6.00			
LA-14 33.4/43.3 Sand Cny to Escondido (S)	125604	27.00		9.90			9/99
LA-14 43.3/54.5 Escondido to Pearlblsm	11710O	39.40			11.20		3/02
LA-14 54.5/60.7 Pearlblsm to P-8	12520K	25.90			6.20		4/01
LA-405 S/B Only Waterford to Rte 101	12030K	15.60			Interim Proj.		1/01
LA-10 28.0/31.2 Baldwin to Rte 605	106951	40.00			3.20		2/03
LA-10 31.2/33.4 Rte 605 to Puente Ave.	117071	70.00			2.20		ON HOLD
LA-10 33.4/37.5 Puente to Citrus Ave	117081	51.50			4.10		ON HOLD
LA-10 37.5/42.4 Citrus to Rte 57	119341	40.00			4.90		ON HOLD
LA-10 42.4/48.3 Rte 57 to Co line	122401	63.00			5.90		2/02
LA-405 22.2/25.6 Century to Rte 90	119851	25.00			3.40		6/01
LA-605 0.0/3.8 Ora. Co. Line to South St.	13470K	12.50			3.80		2000
LA-5 0.0/8.3 Ora Co. LIne to Rte 605 (Interim)	168800	190.00				8.30	1/08
LA-5 36.4/39.4 Rte 170 to Rte 118	121901	55.60				3.00	12/05
LA-5 39.4/47.0 Rte 118 to Rte 14	122001	14.00				7.60	8/00
LA-5 18.4/22.6 Rte 10 to Rte 2	12160K	221.50				4.20	9/09
LA-5 22.6/27.1 Rte 2 to Rte 134	12120K	221.50				4.50	7/09
LA-5 26.7/36.4 Rte 134 to Rte 170	12180K	44.00				9.70	9/05
LA-10 5.5/14.8 Rte 405 to Rte 110	12340K	155.00				9.30	
LA-14 24.8/27.1 Rte 5 to S.F. Road	11984K	11.50				2.30	06/02
LA-60 11.7/23.0 Rte 605 to Brea Canyon	12940K	47.00				11.30	4/03
LA-405 26.0/31.5 Rte 90 to Wlshre/Rte 10	11789K	80.00				5.50	12/04
LA-405 31.5/41.4 Wlshre/Rte 10 to Rte 101	12030K	180.00				9.90	8/05
LA-710 26.5/32.7 Rte 10 to Rte 210	020090	---				6.20	
LA-5 & SR-14 Direct Connectors		44.30					
COLOR MAP SUBTOTAL - INTEGRATED PLAN		2799.40	167.10	23.40	44.90	81.80	317.20

Rev. Date 12-30-98

FREEWAYS & HIGHWAYS IN SOUTHERN CALIFORNIA

01 PACIFIC COAST HWY
LINCOLN BLVD

02 GLENDALE FWY
SANTA MONICA BLVD

05 GOLDEN STATE FWY
SANTA ANA FWY

10 SANTA MONICA FWY
SAN BERNARDINO FWY

14 ANTELOPE VALLEY HWY
SIERRA HWY

18 PEARBLOSSOM HWY

19 ROSEMEAD BLVD
LAKEWOOD BLVD

22 GARDEN GROVE FWY

23 23 FWY/DECKER RD/WESTLAKE BLVD
MOORPARK AVE/GRIMES CYN RD

27 TOPANGA CANYON BLVD

30 RTE 30 FWY/BASELINE RD
WILLIAMS AVE/COLLEGE WAY

33 OJAI FWY

39 ORA - BEACH BLVD
L.A. - AZUSA AVE/ S.G. CYN RD

42 MANCHESTER AVE

47 VINCENT THOMAS BRIDGE

49 LANCASTER RD
AVENUE D

55 COSTA MESA FWY
NEWPORT BLVD

57 ORANGE FWY

60 POMONA FWY

66 FOOTHILL BLVD

71 CHINO VALLEY FWY
CORONA EXPRESSWAY

72 WHITTIER BLVD

73 73 FWY

74 ORTEGA HWY

90 IMPERIAL HWY
MARINA FWY

91 ARTESIA FWY
RIVERSIDE FWY

101 HOLLYWOOD FWY
VENTURA FWY

103 TERMINAL ISLAND FWY

105 GLENN ANDERSON FWY

107 HAWTHORNE BLVD

110 HARBOR FWY

118 RONALD REAGAN FWY

126 SANTA PAULA FWY/TELEGRAPH RD

133 LAGUNA CANYON RD

134 VENTURA FWY

138 138 FWY

142 CARBON CANYON RD

150 SANTA PAULA OJAI RD

170 HOLLYWOOD FWY

187 VENICE BLVD

210 FOOTHILL FWY

213 WESTERN AVE

232 VINEYARD AVE

405 SAN DIEGO FWY

605 SAN GABRIEL RIVER FWY

710 LONG BEACH FWY

HIGH OCCUPANCY VEHICLE PROGRAM

Caltrans Los Angeles County (District 7) is home to the nation's most extensive High Occupancy Vehicle lane program, which will be adding car-pool lanes to virtually every freeway in the Los Angeles area by the year 2010.

The 2.7-billion HOV program is designed to quickly increase mobility in the region for a reasonable cost. HOV lanes are seen as the next logical step in improving freeway efficiency to accommodate future increases in population and traffic.

When complete, Los Angeles County (District 7) will have more than 300 miles of HOV facilities in place. The HOV projects are being designed and constructed using local Proposition C funds, and federal and state funds. The funds are being programmed and administered by the Los Angeles County Metropolitan Transportation Authority.

The central concept in the HOV program is moving more people instead of cars thereby, increasing freeway efficiency, reducing traffic congestion, reducing fuel consumption and providing travel time savings.

The Interstate 10 HOV lane, also known as the El Monte Busway, was a pioneering experiment in determining the value of the HOV lanes. The easterly section opened in January of 1973, and the westerly section joined the system in May of 1974. Originally designed for buses only, car-pools with three or more people were allowed a few years later. The El Monte Busway lane now carries as many people as three regular traffic lanes during the peak hours. The El Monte Busway is the only HOV facility in Southern California that requires three or more people per vehicle.

Some other high-profile HOV projects are the I-105 Glenn M. Anderson (Century) Freeway and the Harbor Freeway-Transitway (110). The Century, which opened to traffic Oct. 14, 1993, is the first freeway designed and built with HOV lanes in place, and includes time-saving HOV freeway-to-freeway connector ramps at the junction with the Harbor Freeway. The Harbor Freeway-Transitway opened to traffic on June 26, 1996, with a two way elevated viaduct; a first for Los Angeles.

Some recent additions to the HOV system in Los Angeles County include:

March of 1997 - 11.4 miles of carpool lanes opened on the Simi Valley Freeway (Route 118), between the Ventura County Line and Route 5.

April of 1997 - 7.0 miles of carpool lanes opened on the San Gabriel River Freeway (Route 605), between South St. and Telegraph Rd.

August of 1997 - 4.5 miles of carpool lanes opened on the Orange Freeway (Route 57), between the Orange County Line and Route 60.

September of 1997 - 2.3 miles of carpool lanes opened on the Route 30, between Sunflower and Foothill Blvd.

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May of 1998 - 6.4 miles of carpool lanes opened on the Antelope Valley Highway (Route 14), between San Fernando Road and Sand Canyon.

October of 1998 - 6.1 miles of carpool lanes opened on the San Diego Freeway (Route 405), between Route 710 and Route 110.

From 1996 to October 1998, 14 new car-pool facilities were opened to traffic in Los Angeles County, which brings the total HOV miles to 167.

The current District 7 HOV program has an important distinction from the "Diamond Lane" experiment of the 1970s: no traffic lanes are being taken away. Rather, the new HOV lanes are being added to the existing freeways, mostly through re-striping and using part of the freeway median, or outside widening.

Today, each vehicle that travels on an HOV lane must carry two people or be subject to a minimum $271 fine. The lone exception in Los Angeles County is the three-person minimum requirement on the El Monte Busway. Motorcycles, even those carrying just one person, are allowed to use the HOV lanes.

All HOV facilities in Southern California are operated on a 24 hour basis.

HOV RAMP METERING AND HOV BYPASS LANES

There are 859 ramps that are metered in Los Angeles and Ventura Counties; of which, 320 have separate HOV bypass lanes, where the HOVs do not have to stop at the ramp meter signal. Ramp metering is one of Traffic Management's tools to regulate the flow of traffic entering the freeways during the peak traffic hours. Ramp metering will:

a. smooth the overall flow of freeway traffic
b. accommodate more vehicles per hour on the freeway
c. decrease commuting travel times
d. and increase safety on the freeway.

Ramp metering reduces traffic congestion on the freeway. This increases the capacity of the mixed flow lane and enables traffic to flow at greater speeds. The number of traffic accidents are reduced as well. Freeway congestion is most often caused by a bottleneck, where the freeway demand exceeds the freeway capacity. This condition usually occurs during the weekday peak hours, but some freeways experience congestion during the mid-day and some on weekends. When the demand exceeds the capacity, congestion creates queues of stop-and-go traffic, and ramp metering limits the amount of traffic entering the freeway so that the demand at the bottleneck does not exceed the capacity. A free-flowing traffic lane can carry 33% more cars than a congested lane. It is in the interest of all the public to keep the freeways moving freely.

On weekdays, the meters operate 3 to 4 hours during the peak traffic periods. Some ramps are also metered during the mid-day hours, and some are even metered on weekends. The rate at which cars are allowed onto the freeway is determined by the ramp volume, as well as the volume on the freeway. The mainline responsive controllers react to the volumes on the freeway, such that if the volumes decrease significantly, then the meter will adjust and allow more cars onto the freeway. If the freeway volumes are very light, the meter may go to continuous green.

Projects within freeway segments identified in the Ramp Meter Development Plan should include provisions for ramp metering. However, there are ramp locations that are not metered, due to the heavy volume of traffic and/or insufficient storage area for the metered vehicles. The average cost for a complete installation of a ramp meter is $50,000. This cost as a percentage of the freeway construction varies depending on the type of freeway construction.

HOV VIOLATION FINES

The fine for an HOV violation is currently $271.00.

The occupancy fine, based on the vehicle code (Section 21655.5), is as follows for all the courts

$100.00	Fine
$170.00	Assessment (based on $17.00 per every $10.00 fine)
$270.00	Minimum Fine
$ 1.00	If Night Court is included
$271.00	

The above fine is also the same for crossing the buffer section of an HOV lane (Vehicle Code Section 21655.8). The first HOV offense is $271.00, the second offense is $406.00, and the third offense is $675.00.

SUMMARY OF HOV OPERATIONS

The following is a summary of HOV operations for District 7 in 1998:

- By the end of 1998, Los Angeles County had 342 lane miles of HOV facilities, or 40% of the total 775 lane miles in the State of California.

- On average, HOV facilities in Los Angeles County carried 1100 vehicles per hour or **2800 people** per hour, during peak hours. These volumes well exceed the minimum expected volume of 800 vehicles per hour or **1800 people** per hour, as specified in the HOV Guidelines for Planning, Design, and Operations.

- On average, the person-trip volume of an HOV lane was 1.5 times greater than that of a mixed-flow lane during peak hours. (i.e., 1.5 regular lanes are needed to carry an equal number of people in the HOV lane.)

- The average violation rate was 0.85%, which is substantially lower than the preferable rate of below 10%, as specified in the HOV Guidelines for Planning, Design, and Operations.

- Since 1992, the total number of carpools on freeways with HOV lanes has increased steadily, whereas on freeways without HOV lanes, the total number of carpools has remained relatively constant or decreased. From 1992 to 1998, the data indicates an increase of 52% in the total number of carpools on freeways with HOV lanes for the morning peak 2-hour period. Significant increases in carpools were also observed in the afternoon peak 2-hour period. (For details, see tables and charts titled “Number of Carpools on Freeways” on pages 14-17.)

- On average, the peak hour volume was 10%, and the peak 2-hour volume was 24% of the daily HOV traffic volume, excluding the El Monte Bus Way data, which has the 3+ occupancy requirement.

- The average volume on HOV facilities during peak hours represents a level of service C, while most of the mixed-flow lanes have a level of service E-F during peak hours.

- The HOV facilities in Los Angeles County carried approximately 197,000 vehicles or **447,000 people** per day during 1998, which is an increase from 1997’s daily volumes by 30,000 vehicles and 66,000 people.

CURRENT HOV VOLUMES

HOV LANE CAPACITY IS 1650 VPH

Route	Location	Post Mile	Opening Date	Count Date	2+ Peak Hour Volume	3+ Peak Hr Volume	Dir.	HOV Lane Peak Hour	Peak 2 Hr HOV Volume	Occup. Rqmt.	ADT	Corridor ADT
10	Warwick O.C.	21.86	1973	3-11-98	____	801	W/B	7:15-8:15 A.M.	1428	3+	8025	14843
	Warwick O.C.	21.86	1973	10-29-98	____	904	E/B	4:30-5:30 P.M.	1627	3+	6818	
14	Golden Valley	29.68	5-5-98	5-14-98	932	146	S/B	6:30-7:30 A.M.	1482	2+	5414	10700
	Golden Valley	29.68	5-5-98	5-21-98	1011	173	N/B	4:00-5:00 P.M.	1828	2+	5286	
57	Pathfinder O.C.	3.16	8-22-97	7-30-98	951	67	S/B	6:45-7:45 A.M.	1607	2+	9450	17952
	Pathfinder O.C.	3.16	8-22-97	6-23-98	837	108	N/B	4:00-5:00 P.M.	1585	2+	8502	
91	Wilmington Ave.	9.16	3-11-93	6-2-98	1243	85	W/B	7:15-8:15 A.M.	2201	2+	5904	____
	Wilmington Ave.	9.16	6-10-85	5-20-98	1242	155	E/B	4:30-5:30 P.M.	2271	2+	7329	
	Bloomfield Ave.	19.17	11-94	6-4-98	895	84	W/B	7:00-8:00 A.M.	1605	2+	5281	10774
	Artesia Blvd.	19.43	11-94	5-19-98	743	116	E/B	4:15-5:15 P.M.	1417	2+	5493	
105	Long Beach Blvd.	11.51	10-14-93	6-16-98	1425	216	W/B	6:30-7:30 A.M.	2894	2+	10272	18145
	Long Beach Blvd.	11.51	10-15-93	6-3-98	1293	259	E/B	3:30-4:30 P.M.	2502	2+	7873	
110	Slauson P.O.C.	17.98	6-26-96	12-1-98	2939*	110	N/B	7:15-8:15 A.M.	5337	2+	21511	45033
	Slauson P.O.C.	17.98	6-26-96	11-20-98	2217*	350	S/B	4:30-5:30P.M.	3917	2+	23522	
118	Reseda Ave.	5.81	3-7-97	3-10-98	583	65	E/B	7:30-8:30A.M.	991	2+	3069	7115
	Reseda Ave.	5.81	3-8-97	3-19-98	565	67	W/B	4:30-5:30 P.M.	912	2+	4046	
134	Jackson Ave.	7.41	10-1-95	6-30-98	749	56	W/B	7:30-8:30 A.M.	1253	2+	5185	11539
	Jackson Ave.	7.41	10-2-95	5-27-98	887	154	E/B	4:30-5:30 P.M.	1542	2+	6354	
170	Sherman Way	18.27	2-11-96	10-8-98	757	79	S/B	7:00-8:00 A.M.	1327	2+	3648	7223
	Sherman Way	18.27	2-12-96	10-20-98	624	115	N/B	4:15-5:15 P.M.	1078	2+	3575	
210	Wilson Ave O.C.	26.57	12-16-93	6-3-98	930	82	W/B	7:15-8:15 A.M.	1764	2+	10407	20038
	Wilson Ave O.C.	26.57	12-17-93	4-1-98	1457	191	E/B	4:30-5:30 P.M.	2590	2+	9631	
	Second St. O.C.	39.12	12-16-93	7-16-98	1436	135	W/B	6:30-7:30 A.M.	2673	2+	6028	____
	Second St. O.C.	39.12	12-16-93	6-9-98	1396	186	E/B	4:15-5:15 P.M.	2685	2+	4995	
405	Normandie	13.81	4-8-93	10-15-98	1294	109	N/B	6:30-7:30 A.M.	2316	2+	9384	17898
	Normandie	13.81	4-9-93	10-14-98	1069	163	S/B	4:00-5:00 P.M.	2041	2+	8514	
	Burbank Blvd.	40.28	10-22-96	6-18-98	1089	146	S/B	6:30-7:30 A.M.	1846	2+	6227	____
	Burbank Blvd.	40.28	10-23-96	6-25-98	828	94	N/B	4:30-5:30 P.M.	1554	2+	5908	
605	Beverly Blvd.	14.42	4-3-98	5-19-98	535	47	N/B	7:15-8:15 A.M.	943	2+	7161	15977
	Beverly Blvd.	14.41	4-3-98	5-14-98	674	95	S/B	4:00-5:00 P.M.	1277	2+	8816	

*** 2 Lane HOV Facility**

Avg. occupancy for a 2+ facility is 2.2 and for a 3+ is 3.1

Note: ADT data is not necessarily taken at the same count locations.

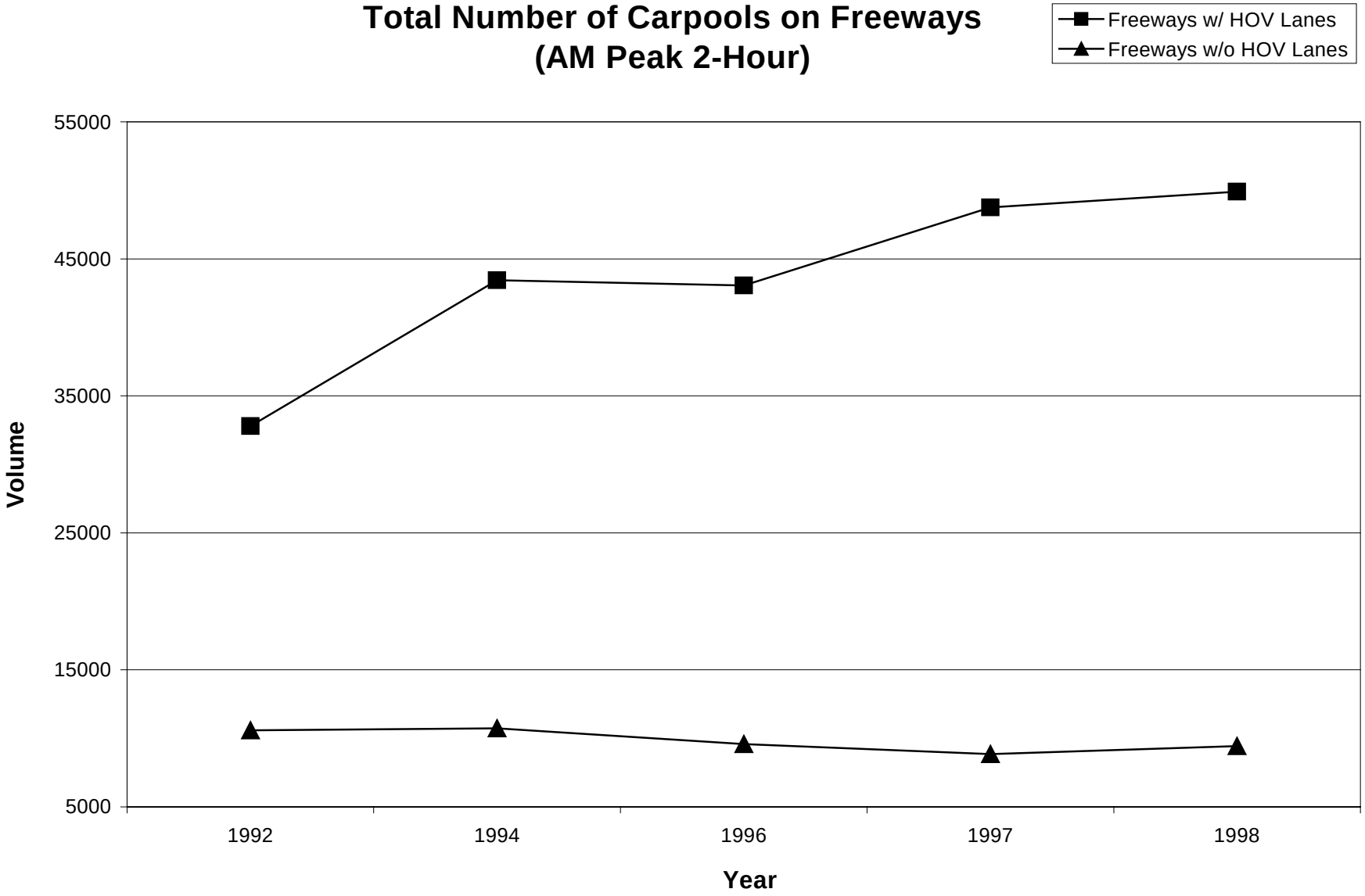
Total Vehicles / day	**197237**
Total People / day	**447280**

Number of Carpools on Freeways (AM Peak 2-Hour)

	Route	Length of HOV Lanes	Opening Date of HOV Lanes	Location	AM Peak 2-Hour Number of Carpools in HOV lanes					AM Peak 2-Hour Total Number of Carpools on freeway				
					Base Year 1992	1994	1996	1997	1998	Base Year 1992	1994	1996	1997	1998
Freeways w/ HOV Lanes	10	11 Miles	Jan-73	Warwick	2312	1849	1139	1813	1475	2362	2294	1219	1893	1550
				Jackson	*1722*	1722	1879	2022	1430	*1812*	1812	1969	2062	1476
	14	6.4 Miles	May-98	Golden Valley	-	-	-	-	1491	1290	1834	1174	*1971*	1971
	57	4.5 Miles	Aug-97	Pathfinder	-	-	-	1777	1615	1420	1660	1315	2327	2360
	91	14.3 Miles	Mar-93	Wilmington	-	1120	1952	2434	2209	2185	2875	2777	3394	3079
				Bloomfield	-	-	1449	2011	1622	2105	1580	2504	2846	2557
	105	16 Miles	Oct-93	Lakewood	-	1674	2232	2419	2134	-	2642	2787	2539	2629
				Long Beach	-	2444	2679	3086	2908	-	3010	3395	3382	3242
	110	10.7 Miles	Jun-96	Slauson	-	-	3084	4722	5199	2585	3110	4144	5307	5754
	118	11.4 Miles	Mar-97	Reseda	-	-	-	598	1004	1519	1391	1220	1733	1909
				Winnetka	-	-	-	549	946	1264	1628	1283	1439	1836
	134	12.9 Miles	Oct-95	Jackson	-	-	810	1273	1260	2165	2320	2540	2408	3075
			Mar-96	Pass	-	-	1016	1036	1017	1760	2195	1721	1811	1722
	170	6.1 Miles	Feb-96	Sherman Way	-	-	1102	1277	1334	1650	2150	2137	2187	2454
	210	18.5 Miles	Dec-93	2nd St.	-	2338	2721	2605	2775	2215	3833	3801	3425	3460
				Wilson	-	2186	*1963*	1963	1807	3390	3392	*3667*	3667	3601
	405	10.1 Miles	Oct-96	Burbank	-	-	1529	1826	1851	1495	2115	2084	2451	2581
		11.9 Miles	Apr-93	Normandie	-	1021	1578	-	2034	*2311*	2311	2238	1760	2294
	605	16.9 Miles	Apr-97	Beverly	-	-	-	*949*	949	*1280*	1280	1095	2150	2369
	Total				4034	14354	25133	32360	38010	32808	43432	43070	48752	49919
	% Change From Base Year									-	32%	31%	49%	52%
Freeways w/o HOV Lanes	2			Trentway						2070	*1230*	1230	1675	1670
	5			Greenwood						2370	2280	2030	2065	1425
	60			Barford						1540	1785	1240	1065	1240
	101			Encino						2140	3036	2592	*2508*	2508
	710			Gage						2465	2400	2500	1535	2585
	Total									10585	10731	9592	8848	9428
	% Change From Base Year									-	1%	-9%	-16%	-11%

Note: For statistical purposes, if the data of the year is not available and the facility was open at the time, the data for the following year is used.

Total Number of Carpools on Freeways (AM Peak 2-Hour)



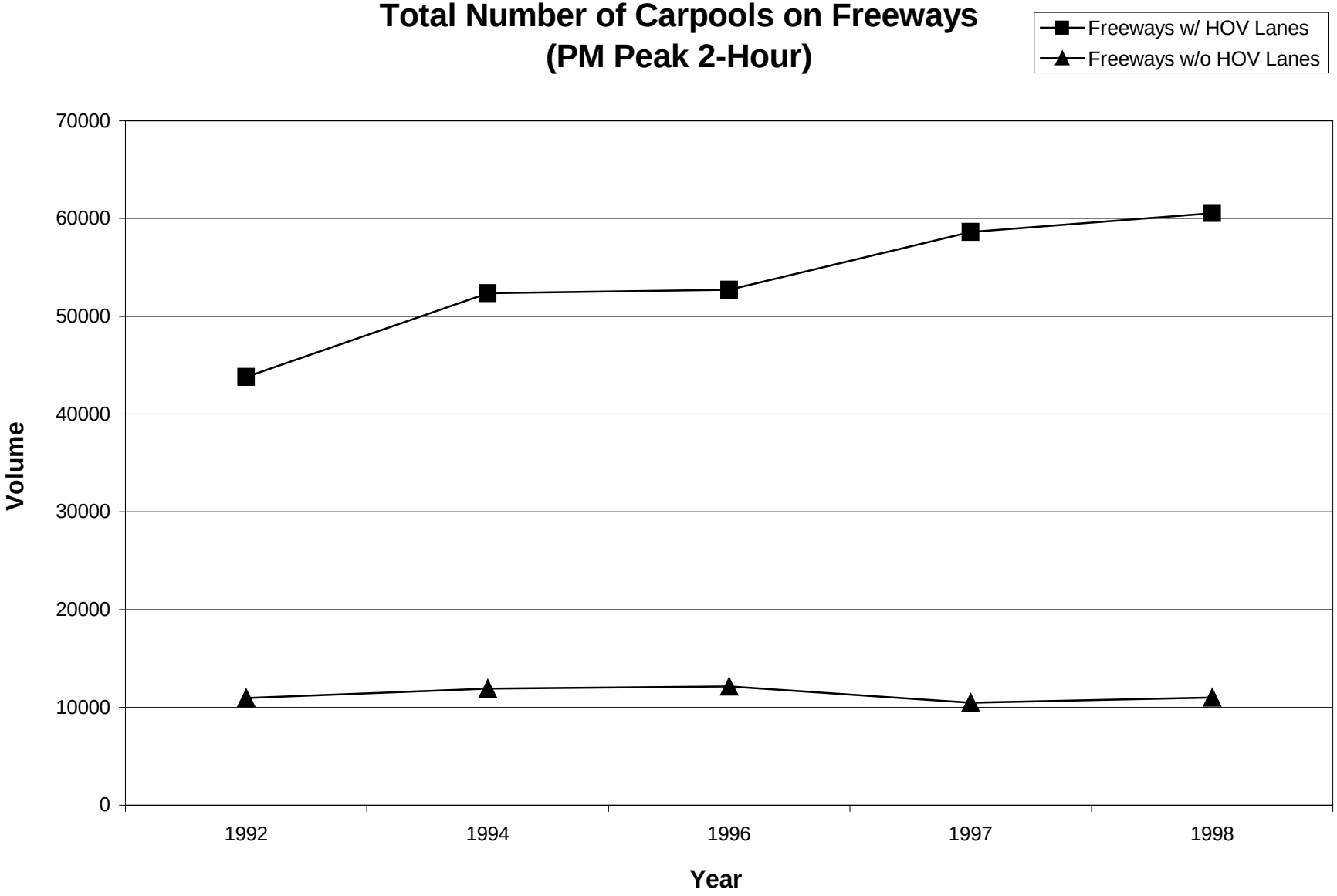
Note: The volume on freeways w/ HOV lanes is the total carpool volume at various locations on freeways, I-10, SR-14, SR-57, SR-91, I-105, I-110, SR-118, SR-134, SR-170, I-210, I-405, and I-605. The volume on freeways w/o HOV lanes is the total carpool volume at various locations on freeways, SR-2, I-5, SR-60, US-101, and I-710.

Number of Carpools on Freeways (PM Peak 2-Hour)

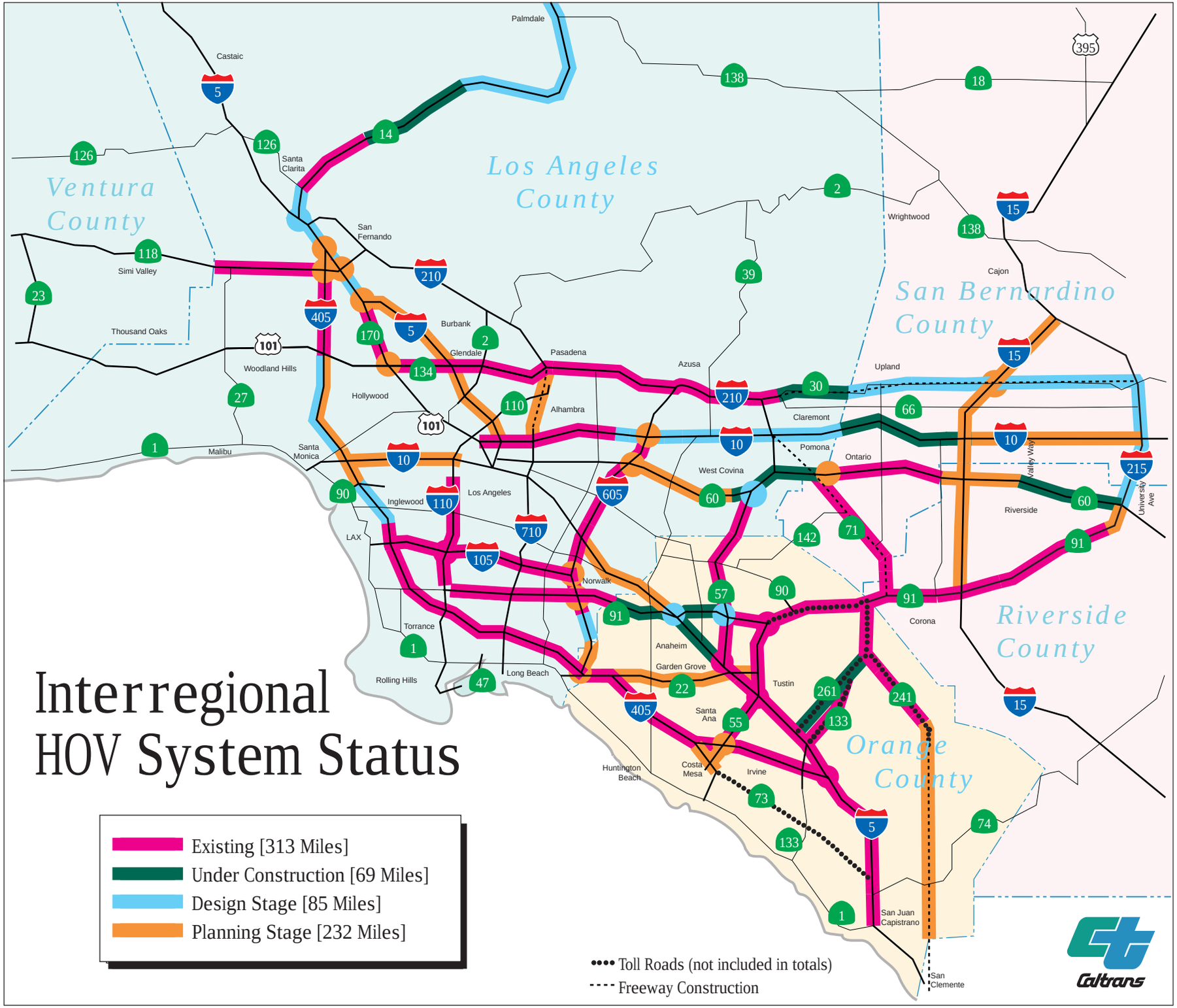
	Route	Length of HOV Lanes	Opening Date of HOV Lanes	Location	PM Peak 2-Hour Number of Carpools in HOV lanes					PM Peak 2-Hour Total Number of Carpools on freeway				
					Base Year 1992	1994	1996	1997	1998	Base Year 1992	1994	1996	1997	1998
Freeways w/ HOV Lanes	10	11 Miles	Jan-73	Warwick	1956	1789	1858	1697	1878	2550	2377	2113	1802	2100
				Jackson	*1972*	1972	1709	1253	1575	*2322*	2322	1834	1383	1740
	14	6.4 Miles	May-98	Golden Valley	-	-	-	-	1828	1768	1460	1834	*3088*	3088
	57	4.5 Miles	Aug-97	Pathfinder	-	-	-	2020	1590	2305	2505	1475	2970	2815
	91	14.3 Miles	Oct-85	Wilmington	2683	1125	2657	2282	2378	4653	2975	2881	3332	3828
				Bloomfield	-	-	1926	1630	1432	2655	2110	3821	3170	3252
	105	16 Miles	Oct-93	Lakewood	-	1757	2105	1795	2055	-	3145	2776	2823	3053
				Long Beach	-	2176	2637	2412	2517	-	3541	3425	2971	3297
	110	10.7 Miles	Jun-96	Slauson	-	-	2788	3351	3904	*3270*	3270	4708	5096	5544
	118	11.4 Miles	Mar-97	Reseda	-	-	-	792	779	*1609*	1609	1811	1822	2054
				Winnetka	-	-	-	766	751	1984	2126	1789	2461	2301
	134	12.9 Miles	Oct-95	Jackson	-	-	1200	1491	1547	3020	2420	2555	2781	3717
			Mar-96	Pass	-	-	1068	1072	1075	1955	2445	2488	2357	2320
	170	6.1 Miles	Feb-96	Sherman Way	-	-	868	1019	1007	1915	2025	2023	2359	2437
	210	18.5 Miles	Dec-93	2nd St.	-	2451	2422	2751	2691	3150	4686	4002	4381	3906
				Wilson	-	2209	2524	2776	2603	3432	4759	4816	5788	5273
	405	10.1 Miles	Oct-96	Burbank	-	-	1141	1569	1558	2705	3215	2856	3659	3568
		11.9 Miles	Apr-93	Normandie	-	*1536*	1536	-	2049	*2205*	2205	2816	*3559*	3559
	605	16.9 Miles	Apr-97	Beverly	-	-	-	*1286*	1286	2305	3155	2695	2825	2721
	Total				6611	15015	26439	29962	34503	43803	52350	52718	58627	60573
	% Change From Base Year									-	20%	20%	34%	38%
Freeways w/o HOV Lanes	2			Trentway						*2052*	2052	1884	1896	2016
	5			Greenwood						1945	3090	3120	*3255*	3255
	60			Barford						*2960*	2960	3010	2270	2015
	101			Encino						3984	3816	4122	3042	3714
	710			Gage						-	-	-	-	-
	Total									10941	11918	12136	10463	11000
	% Change From Base Year									-	9%	11%	-4%	1%

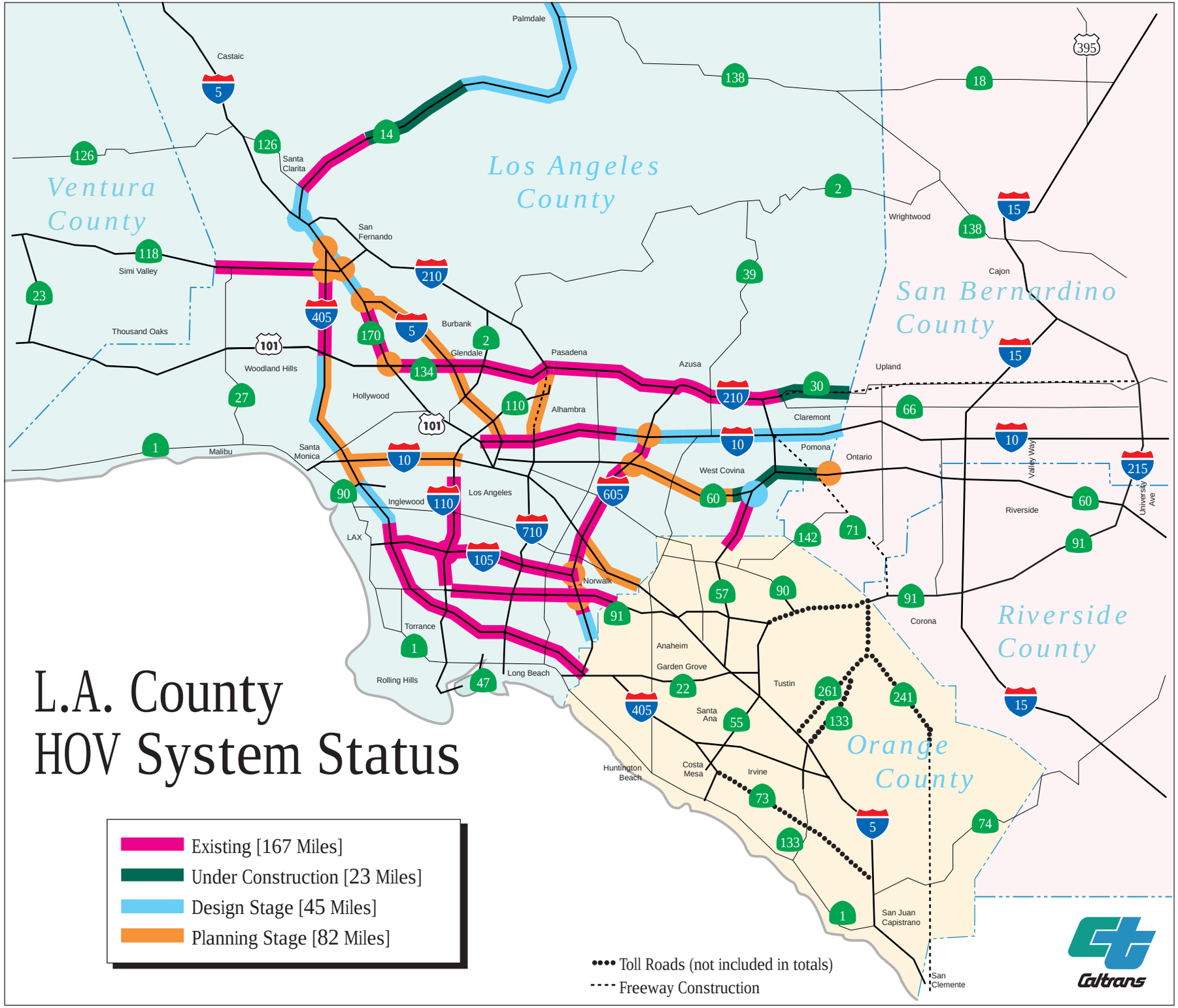
Note: For statistical purposes, if the data of the year is not available and the facility was open at the time, the data for the following year is used.

Total Number of Carpools on Freeways (PM Peak 2-Hour)



Note: The volume on freeways w/ HOV lanes is the total carpool volume at various locations on freeways, I-10, SR-14, SR-57, SR-91, I-105, I-110, SR-118, SR-134, SR-170, I-210, I-405, and I-605. The volume on freeways w/o HOV lanes is the total carpool volume at various locations on freeways, SR-2, I-5, SR-60, US-101, and I-710.


Ventura County
Los Angeles County
San Bernardino County
Riverside County
Orange County
Palmdale
Castaic
Santa Clarita
San Fernando
Simi Valley
Thousand Oaks
Woodland Hills
Malibu
Santa Monica
Hollywood
Burbank
Glendale
Pasadena
Azusa
Alhambra
Los Angeles
Inglewood
LAX
Torrance
Rolling Hills
Long Beach
Norwalk
Wrightwood
Cajon
Upland
Claremont
Pomona
Ontario
West Covina
Riverside
Valley Way
University Ave
Corona
Anaheim
Garden Grove
Santa Ana
Tustin
Irvine
Costa Mesa
Huntington Beach
San Juan Capistrano
San Clemente
Interregional HOV System Status
Existing [313 Miles]
Under Construction [69 Miles]
Design Stage [85 Miles]
Planning Stage [232 Miles]
Toll Roads (not included in totals)
Freeway Construction
Caltrans
D7-12/30/98
D8 & D12/30/98
HOV Route Status


Palmdale
Castaic
Santa Clarita
Ventura County
Los Angeles County
San Bernardino County
Riverside County
Orange County
San Fernando
Simi Valley
Thousand Oaks
Woodland Hills
Malibu
Santa Monica
Hollywood
Burbank
Glendale
Pasadena
Azusa
Alhambra
Wrightwood
Cajon
Upland
Claremont
Pomona
Ontario
West Covina
Los Angeles
Inglewood
LAX
Torrance
Rolling Hills
Long Beach
Norwalk
Anaheim
Garden Grove
Santa Ana
Tustin
Irvine
Costa Mesa
Huntington Beach
Corona
Riverside
San Juan Capistrano
San Clemente
Valley Way
University Ave
L.A. County
HOV System Status
Existing [167 Miles]
Under Construction [23 Miles]
Design Stage [45 Miles]
Planning Stage [82 Miles]
Toll Roads (not included in totals)
Freeway Construction
Caltrans
D7-12/30/98
D8 & D12/30/98
HOV Route Status

FACT SHEET

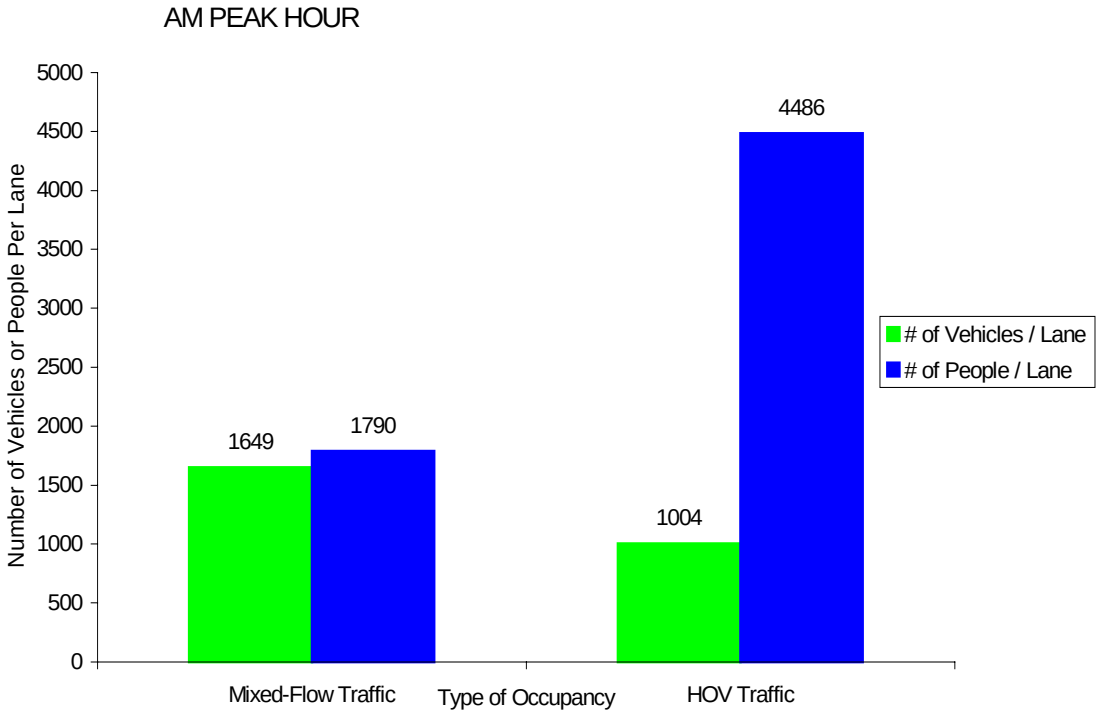
ROUTE 10
SAN BERNANDINO FREEWAY
EL MONTE BUSWAY

Project Limits & Length:	FROM BALDWIN AVE. TO MISSION AVE.; 11 MILES
Date of Opening:	JANUARY 1973
Cost:	$ 58.0 MILLION
Buffer Width:	14 ft or SEPARATE ALIGNMENT ON WESTERLY END
Current Peak Hr Volume:	1004 VEHICLES @ JACKSON (HOV 3+)
Park & Ride Facilities:	5
CHP Enforcement Areas:	1 WEST BOUND
Number of Ingress/Egress:	4 WEST BOUND & 5 EAST BOUND

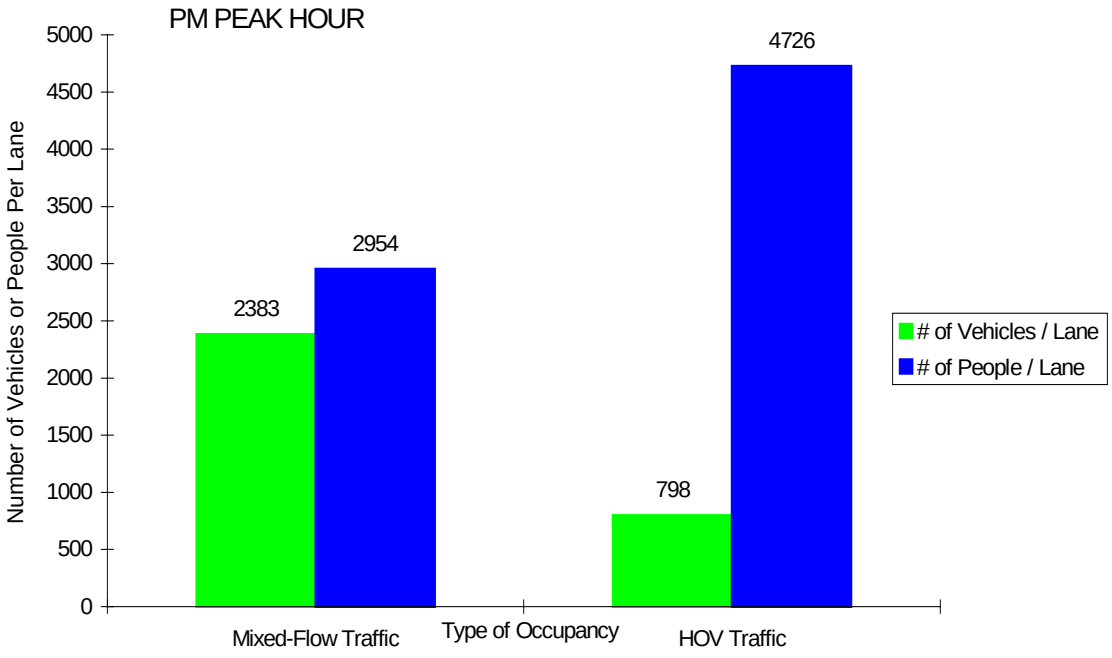
Unique Features:

Fly over on & off ramps at Del Mar. Bus only connectors to and from I-710 north of I-10; Four on line stations at El Monte, University, Hospital, and Union station.

PEAK HOUR COMPARISON



Location: LA-10-W/B @ Jackson Ave O.C.
Date/Time: 11-03-98 / 7:15-8:15 AM



Location: LA-10-E/B @ Jackson Ave O.C.
Date/Time: 11-04-98 / 4:30-5:30 PM

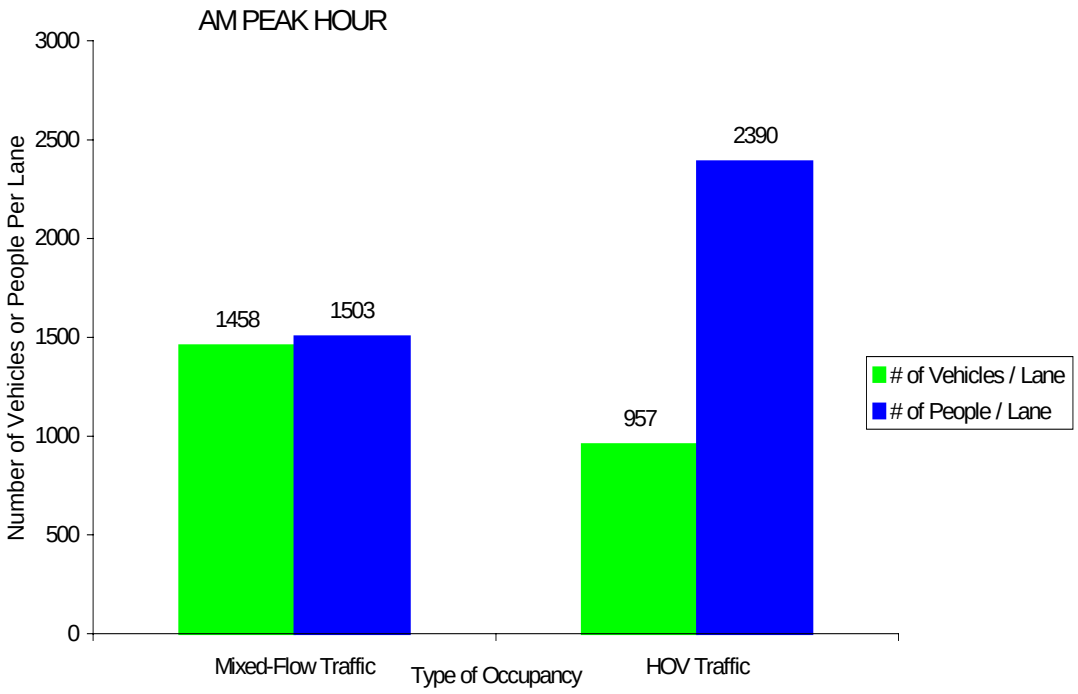
FACT SHEET

ROUTE 14

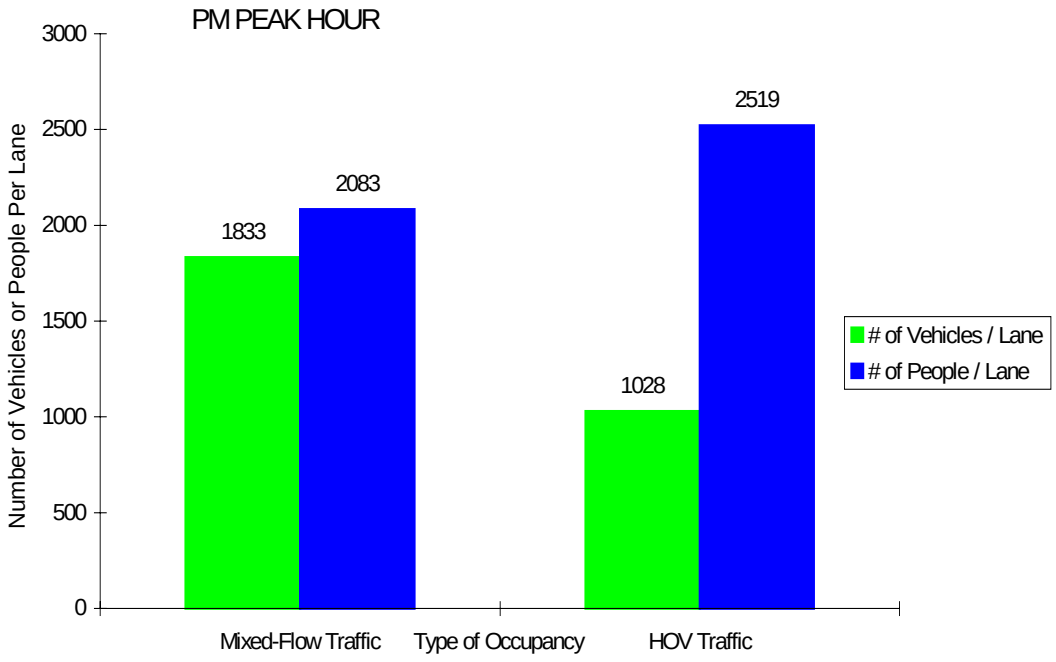
Project Limits & Length:	FROM SAN FERNANDO RD TO SAND CANYON; 6.4 MILES
Date of Opening:	MAY 5, 1998
Cost:	$ 23.2 MILLION
Buffer Width:	4 ft, 12 ft LANES
Current Peak Hr Volume:	1028 VEHICLES @ GOLDEN VALLEY
Park & Ride Facilities:	1 @ GOLDEN VALLEY
CHP Enforcement Areas:	NONE (14 ft MEDIAN SHOULDER)
Number of Ingress/Egress:	3 NORTH BOUND & 4 SOUTH BOUND

Unique Features:

PEAK HOUR COMPARISON



Location: LA-14-S/B @ Golden Valley
Date/Time: 05-14-98 / 6:30-7:30 AM



Location: LA-14-N/B @ Golden Valley
Date/Time: 05-21-98 / 4:00-5:00 PM

FACT SHEET

ROUTE 30

Project Limits & Length:	FROM SUNFLOWER TO FOOTHILL BLVD; 2.3 MILES
Date of Opening:	SEPTEMBER 8, 1997
Cost:	$ 10.0 MILLION
Buffer Width:	1 ft, 3 ft
Current Peak Hr Volume:	NO MANUAL COUNT LOCATION IN SEGMENT
Park & Ride Facilities:	N/A
CHP Enforcement Areas:	NONE
Number of Ingress/Egress:	NONE

Unique Features:

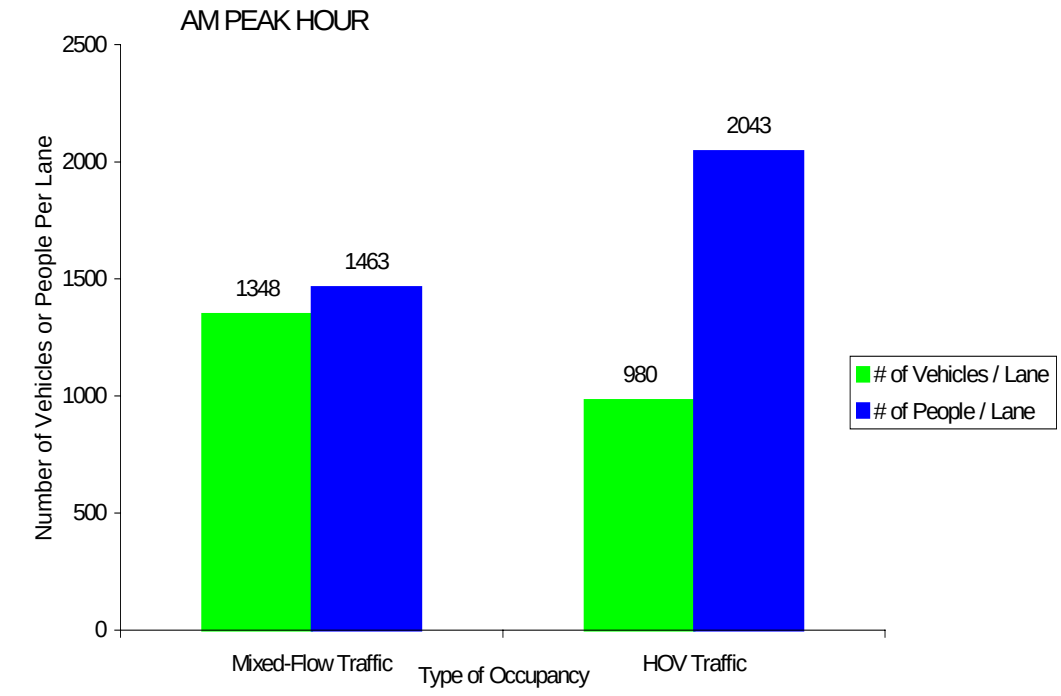
FACT SHEET

ROUTE 57
ORANGE FREEWAY

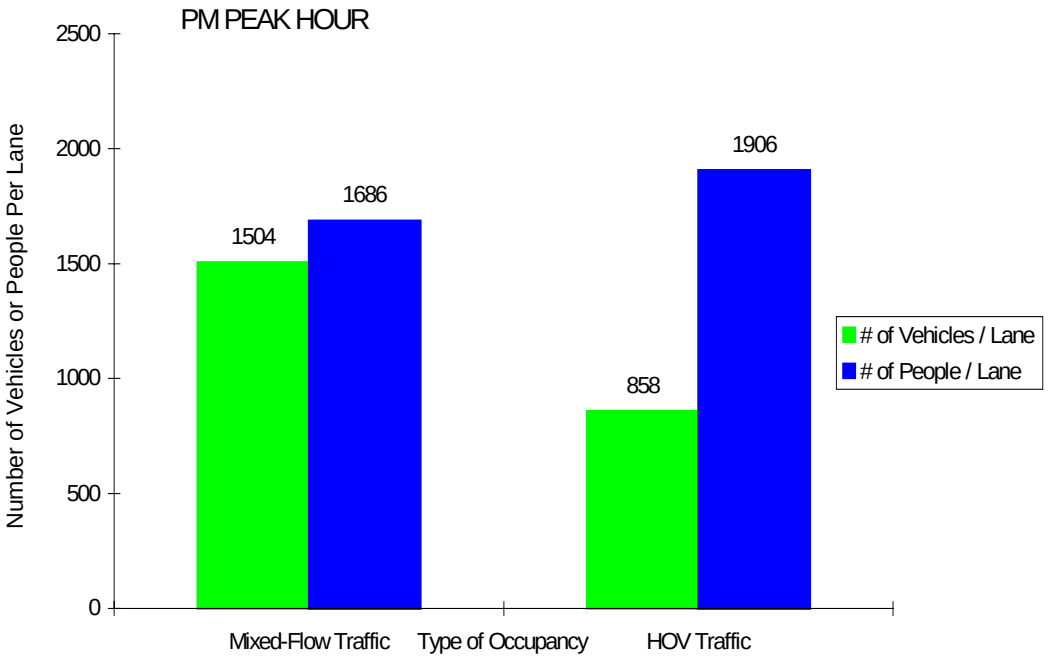
Project Limits & Length:	FROM ROUTE 60 TO ORANGE COUNTY LINE; 4.5 MILES
Date of Opening:	AUGUST 22, 1997
Cost:	$ 19.0 MILLION
Buffer Width:	1 ft, 4 ft, 11-ft LANES
Current Peak Hr Volume:	980 VEHICLES @ PATHFINDER
Park & Ride Facilities:	1
CHP Enforcement Areas:	NONE
Number of Ingress/Egress:	4 IN EACH DIRECTION

Unique Features:

PEAK HOUR COMPARISON



Location: LA-57-S/B @ Pathfinder O.C.
Date/Time: 07-30-98 / 6:45-7:45 AM



Location: LA-57-N/B @ Pathfinder O.C.
Date/Time: 06-23-98 / 4:00-5:00 PM

FACT SHEET

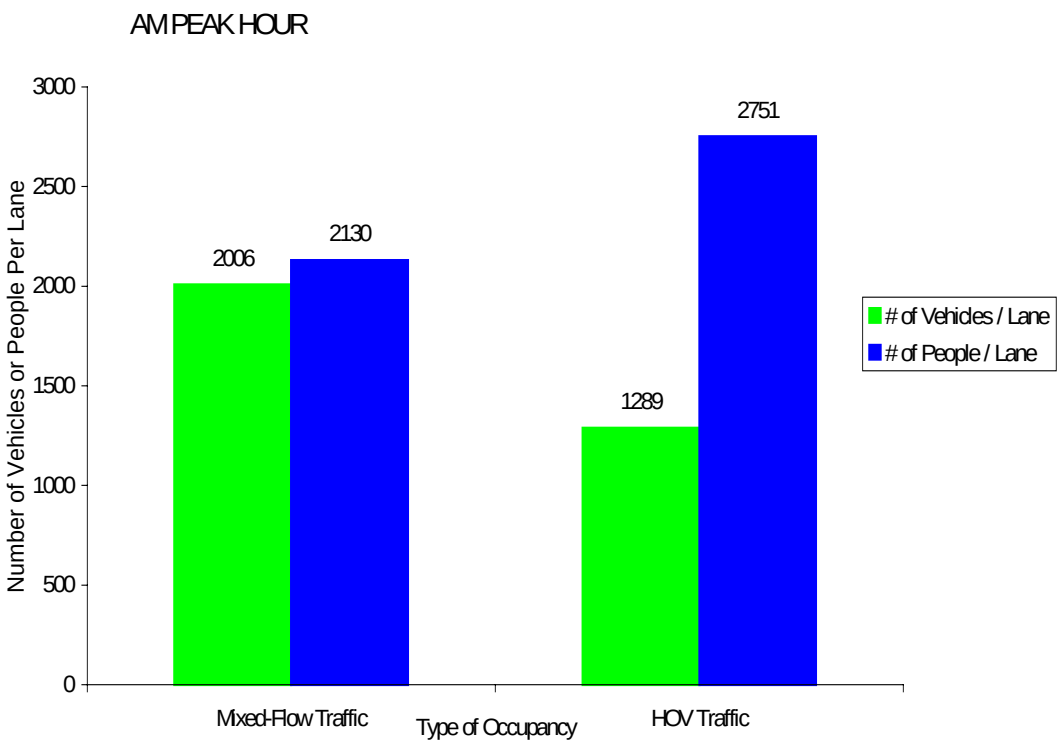
ROUTE 91
ARTESIA FREEWAY

Project Limits & Length:	FROM ROUTE 110 TO ROUTE 605	10.3 MILES
	FROM ROUTE 605 TO ORANGE CO. LINE	4.0 MILES
Date of Opening:	FROM ROUTE 110 TO ROUTE 605	JUNE 10, 1985 (E/B) MARCH 11, 1993 (W/B)
	FROM ROUTE 605 TO ORANGE CO. LINE	NOVEMBER 1994
Cost:	FROM ROUTE 110 TO ROUTE 605	$ 1.0 MILLION (E/B) $ 1.1 MILLION (W/B)
	FROM ROUTE 605 TO ORANGE CO. LINE	$ 0.9 MILLION
Buffer Width:	1 ft	
Current Peak Hr Volume:	1289 VEHICLES @ WILMINGTON	
Park & Ride Facilities:	2	
CHP Enforcement Areas:	1 IN EACH DIRECTION	
Number of Ingress/Egress:	5 IN EACH DIRECTION	

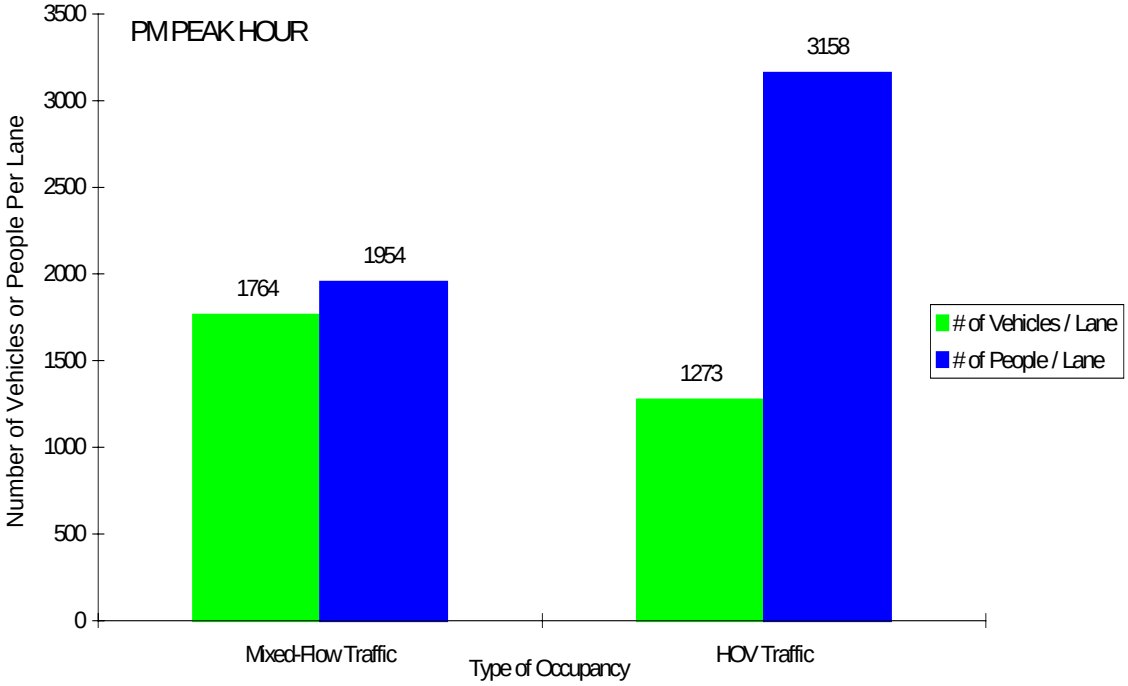
Unique Features:

E/B 91 was originally a demonstration project of part time use of the median shoulder, no reconstruction or even resurfacing was done in 1985; just patches to bridge the approach slabs and placement of signs and markings.

PEAK HOUR COMPARISON



Location: LA-91-W/B @ Wilmington
Date/Time: 06-02-98 / 7:15-8:15 AM



Location: LA-91-E/B @ Wilmington
Date/Time: 05-20-98 / 4:30-5:30 PM

FACT SHEET

ROUTE 105
GLEN ANDERSON/
CENTURY FREEWAY

Project Limits & Length:	FROM ROUTE 405 TO ROUTE 605; 16.0 MILES
Date of Opening:	OCTOBER 14, 1993
Cost:	$ 230.0 MILLIION
Buffer Width:	4 ft
Current Peak Hr Volume:	1457 VEHICLES @ LONG BEACH BLVD
Park & Ride Facilities:	10
CHP Enforcement Areas:	6 IN EACH DIRECTION
Number of Ingress/Egress:	6 WEST BOUND & 7 EAST BOUND

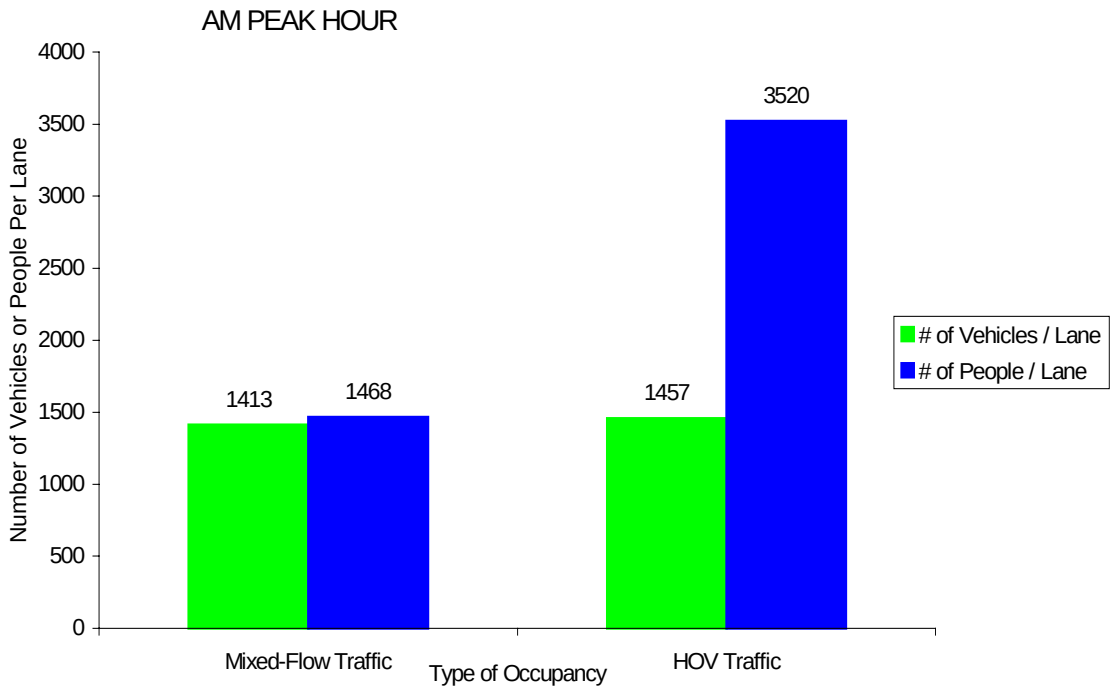
Unique Features:

The 105 freeway has a 10-ft left shoulder for the HOV lanes. The initial freeway construction was stopped for eight years due to environmental concerns. Court consent decree said to provide three mixed flow lanes, one HOV lane and one rail line in each direction.

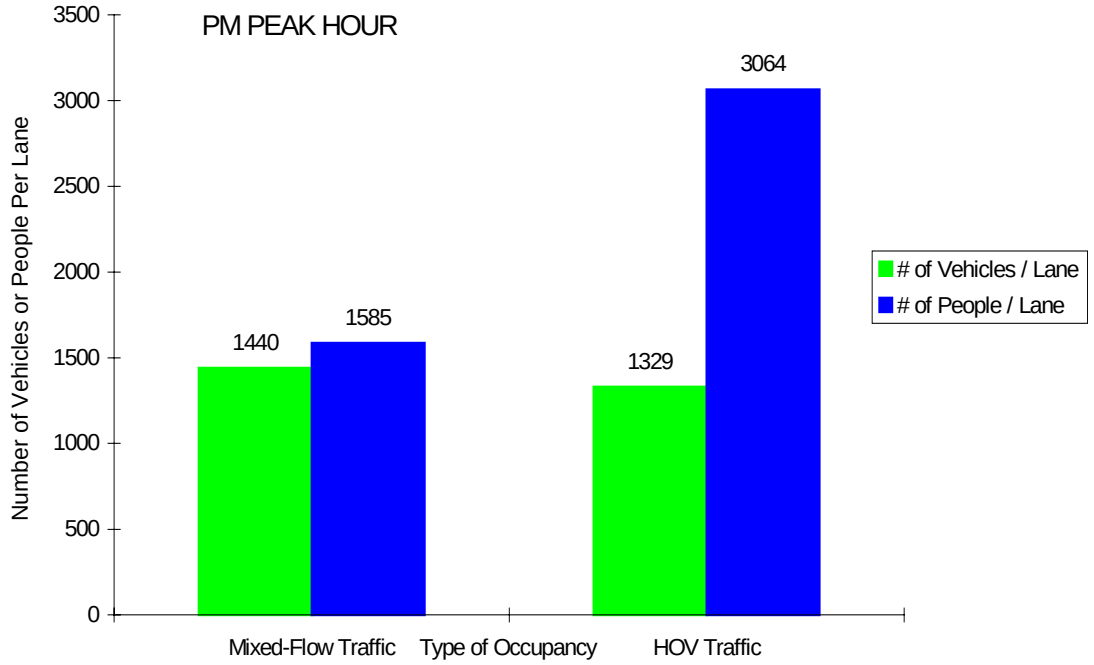
Housing relocation and assistance program almost equal in value to freeway construction costs. The freeway has direct HOV connectors at Route 110/105 interchange. The Route 105/710 interchange used 6000 cubic yards of concrete, which would fill 18 soccer fields 3 ft deep. It used 6500 tons of steel-rebars which can make about 3500 cars.

The most modern freeway has sensors built into the pavement linked to the Caltrans Traffic Operation Center.

PEAK HOUR COMPARISON



Location: LA-105-W/B @ Long Beach Blvd
Date/Time: 06-16-98 / 6:30-7:30 AM



Location: LA-105-E/B @ Long Beach Blvd
Date/Time: 06-03-98 / 3:30-4:30 PM

FACT SHEET

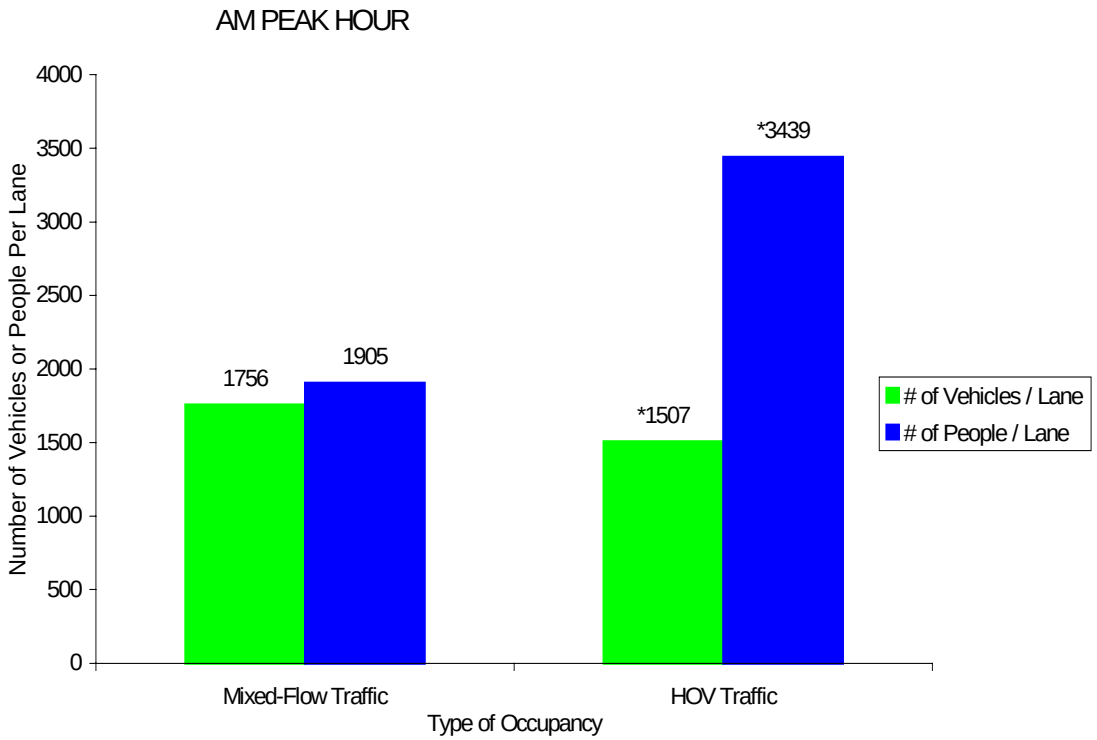
ROUTE 110
HARBOR FREEWAY

Project Limits & Length:	FROM ADAMS BLVD TO ROUTE 91; 10.7 MILES
Date of Opening:	JUNE 26, 1996
Cost:	$ 344.0 MILLION
Buffer Width:	4 ft
Current Peak Hr Volume:	3013 VEHICLES ON 2 HOV LANES @ SLAUSON AVE
Park & Ride Facilities:	8
CHP Enforcement Areas:	LOCATED AT TRANSIT STATIONS
Number of Ingress/Egress:	9 IN EACH DIRECTION

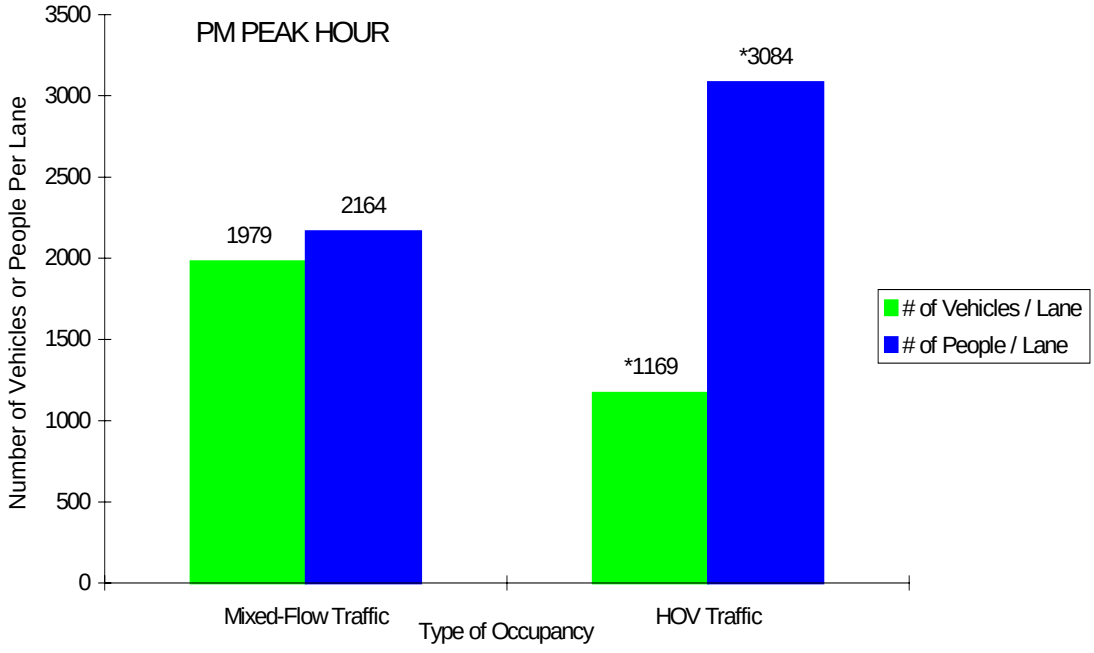
Unique Features:

- 10.3 miles of exclusive transitway with 2.6 miles of elevated structures that are 67-ft wide.
- North of Route 105, the 110 Transitway has two HOV lanes in each direction.
- Direct HOV drop ramps at Adams Blvd. and 39th St.

PEAK HOUR COMPARISON



Location: LA-110-N/B @ Slauson Ave POC
Date/Time: 12-01-98 / 7:15-8:15 AM



Location: LA-110-S/B @ Slauson Ave POC
Date/Time: 11-20-98 / 4:30-5:30 PM

* Two (2) HOV lanes at this location. Data shown represents volume on one (1) HOV lane

FACT SHEET

ROUTE 118
SIMI VALLEY FREEWAY

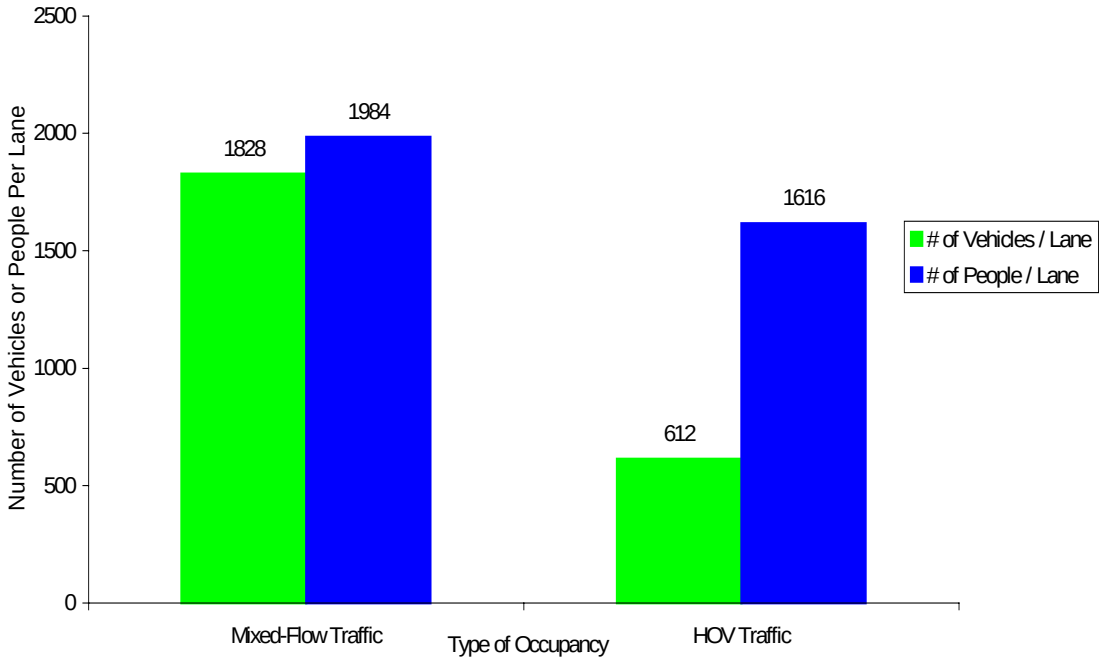
Project Limits & Length:	FROM VENTURA CO. LINE TO RTE 5; 11.4 MILES
Date of Opening:	MARCH 7, 1997
Cost:	$ 23.0 MILLION
Buffer Width:	2 ft - 3 ft, 11-ft LANES
Current Peak Hr Volume:	612 VEHICLES @ RESEDA BLVD
Park & Ride Facilities:	2
CHP Enforcement Areas:	1 IN EACH DIRECTION
Number of Ingress/Egress:	3 IN EACH DIRECTION

Unique Features:

The construction of this HOV facility included the addition of another regular freeway lane as well. Low volumes in the HOV lane are anticipated until congestion returns to the freeway due to inevitable growth.

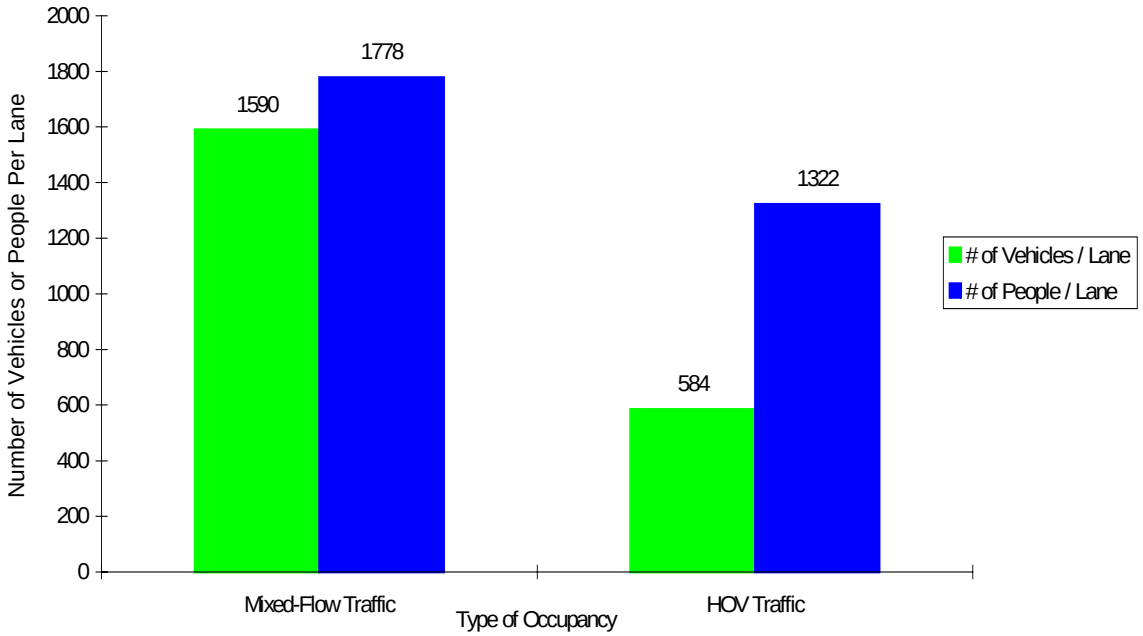
PEAK HOUR COMPARISON

AM PEAK HOUR



Location: LA-118-E/B @ Reseda Blvd
Date/Time: 03-10-98 / 7:30-8:30 AM

PM PEAK HOUR



Location: LA-118-W/B @ Reseda Blvd
Date/Time: 03-19-98 / 4:30-5:30 PM

FACT SHEET

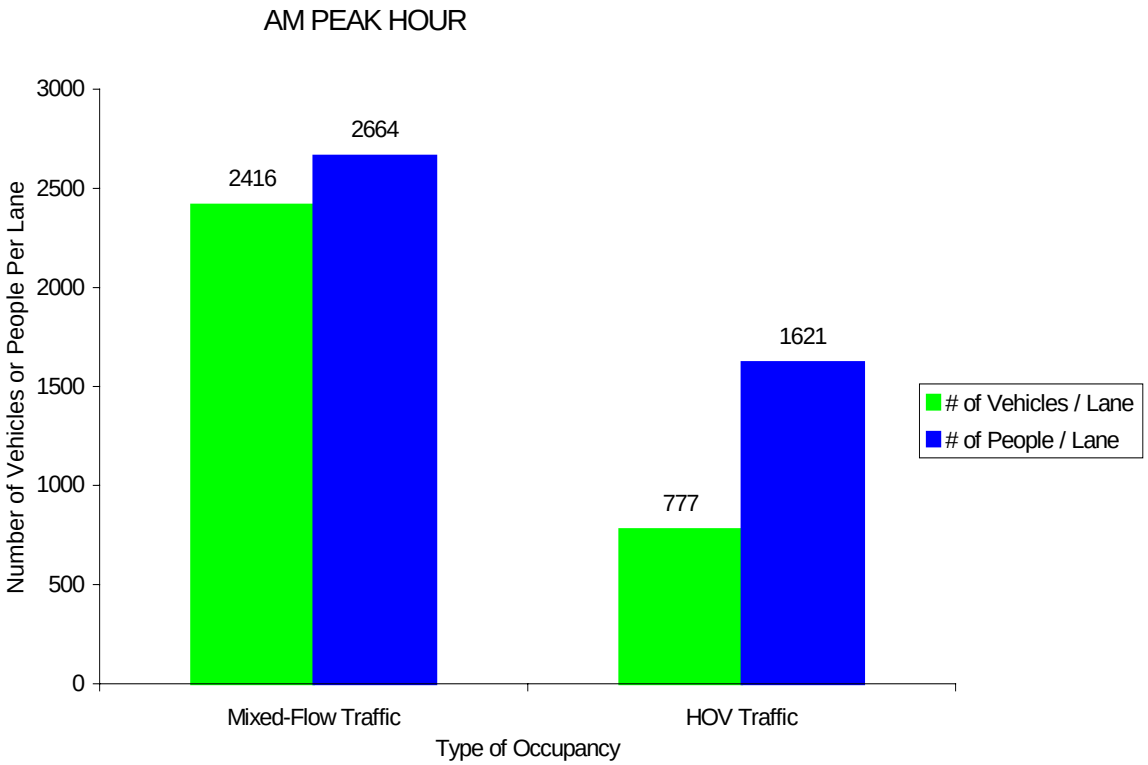
ROUTE 134
VENTURA FREEWAY

Project Limits & Length:	FROM ROUTE 101 TO ROUTE 5	5.1 MILES
	FROM ROUTE 5 TO ROUTE 2	4.2 MILES
	FROM ROUTE 2 TO ROUTE 210	3.6 MILES
Date of Opening:	ROUTE 101 TO ROUTE 5	OCTOBER 2, 1995
	ROUTE 5 TO ROUTE 2	MARCH 12, 1996
	ROUTE 2 TO ROUTE 210	AUGUST 30, 1996
Cost:	ROUTE 101 TO ROUTE 5	$ 7.0 MILLION
	ROUTE 5 TO ROUTE 2	$ 5.7 MILLION
	ROUTE 2 TO ROUTE 210	$ 9.0 MILLION
Buffer Width:	1 ft, 11-FT LANES, NO R/W	
Current Peak Hr Volume:	1122 VEHICLES @ PATRICIAN WAY	
Park & Ride Facilities:	3	
CHP Enforcement Areas:	1 CHP MOTORCYCLE TURNAROUND AT EACH END OF THE FACILITY BETWEEN ROUTE 101 AND ROUTE 5. NO ENFORCEMENT AREA.	
Number of Ingress/Egress:	ROUTE 101 TO ROUTE 5	4 IN EACH DIRECITON
	ROUTE 5 TO ROUTE 2	3 IN EACH DIRECTION
	ROUTE 2 TO ROUTE 210	3 IN EACH DIRECTION

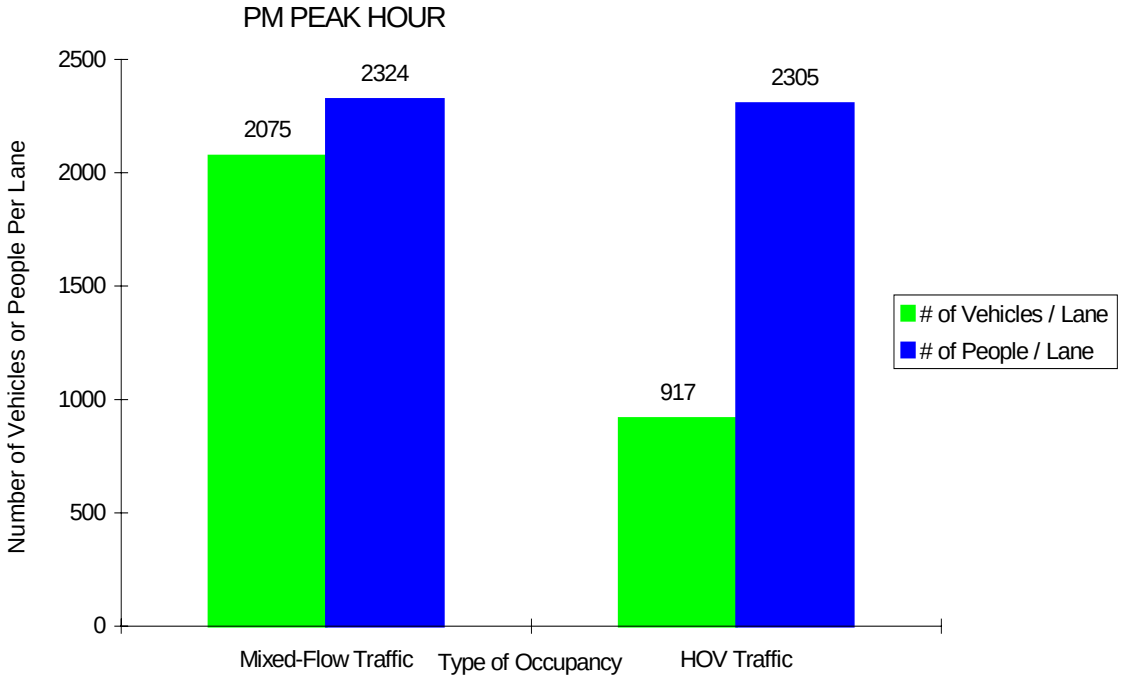
Unique Features:

HOV discontinuity at Route 5 due to connectors of Route 5 to Route 134; HOV lane would have ended up in the #3 lane of the 134 freeway. Therefore, it ends and starts again in the median after 0.8 miles.

PEAK HOUR COMPARISON



Location: LA-134-W/B @ Jackson St.
Date/Time: 06-30-98 / 7:30-8:30 AM



Location: LA-134-E/B @ Jackson St.
Date/Time: 05-27-98 / 4:30-5:30 PM

FACT SHEET

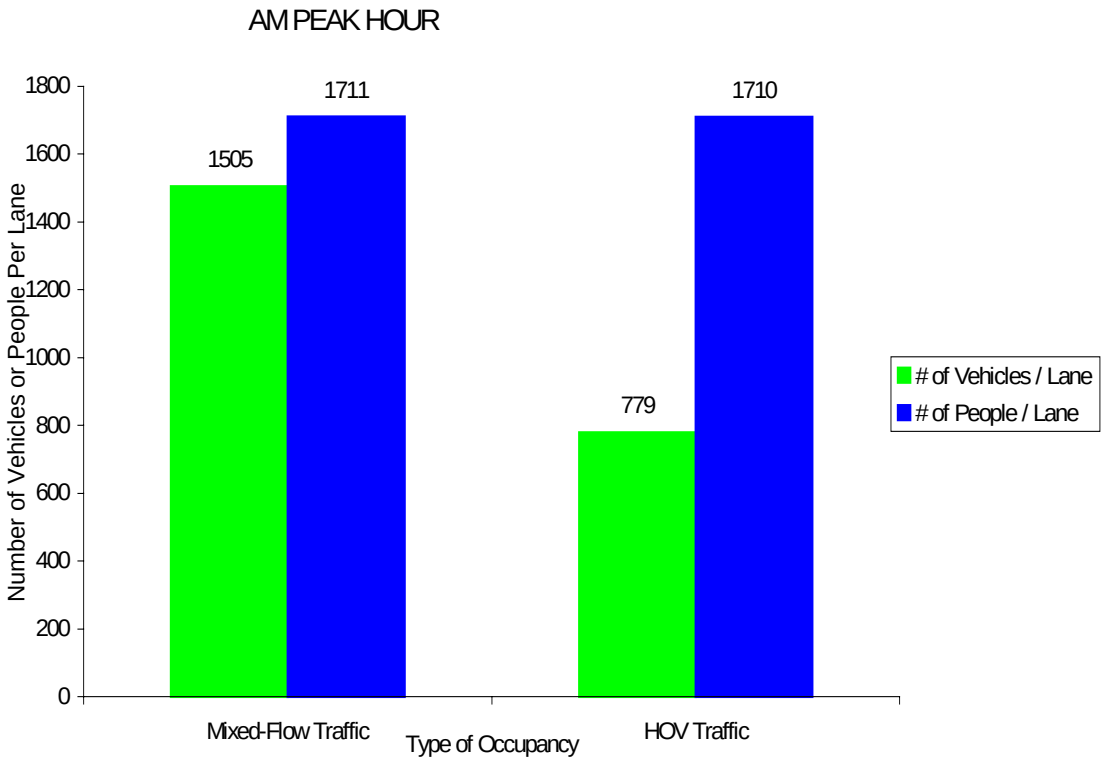
ROUTE 170
HOLLYWOOD FREEWAY
EXTENSION

Project Limits & Length:	FROM ROUTE 101/134 TO ROUTE 5; 6.1 MILES
Date of Opening:	FEBUARY 11, 1996
Cost:	$ 7.9 MILLION
Buffer Width:	1 ft, 11-ft LANES
Current Peak Hr Volume:	779 VEHICLES @ SHERMAN WAY
Park & Ride Facilities:	3
CHP Enforcement Areas:	1 TURNAROUND AREA @ NORTH END
Number of Ingress/Egress:	4 IN EACH DIRECTION

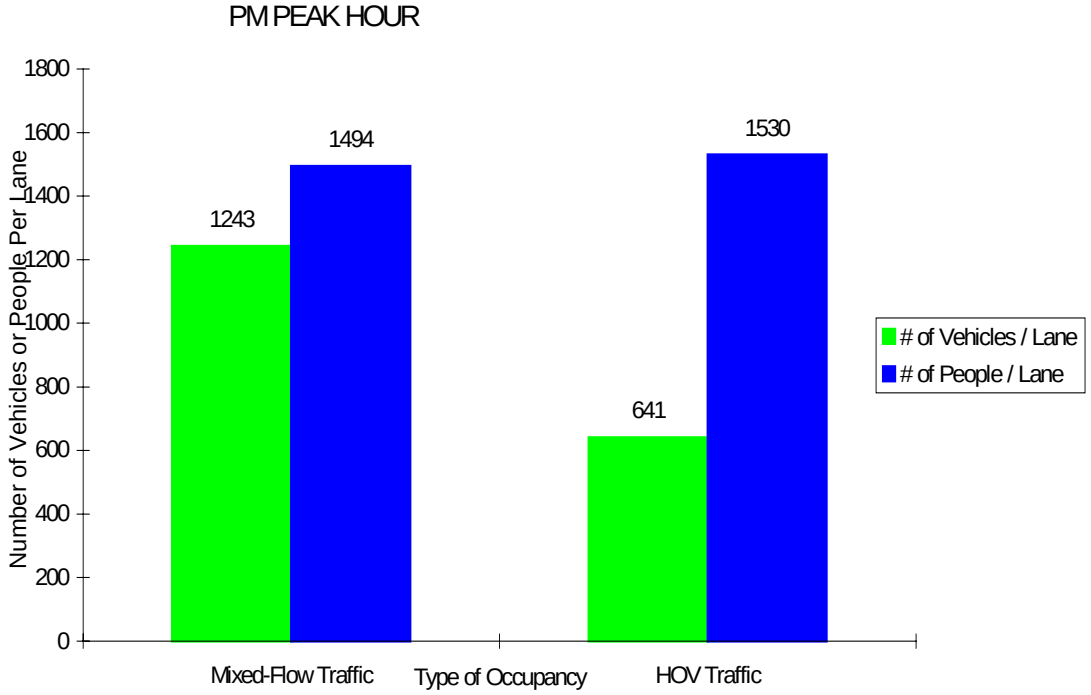
Unique Features:

Fast track HOV project.

PEAK HOUR COMPARISON



Location: LA-170-S/B @ Sherman Way
Date/Time: 10-08-98 / 7:00-8:00 AM



Location: LA-170-N/B @ Sherman Way
Date/Time: 10-20-98 / 4:15-5:15 PM

FACT SHEET

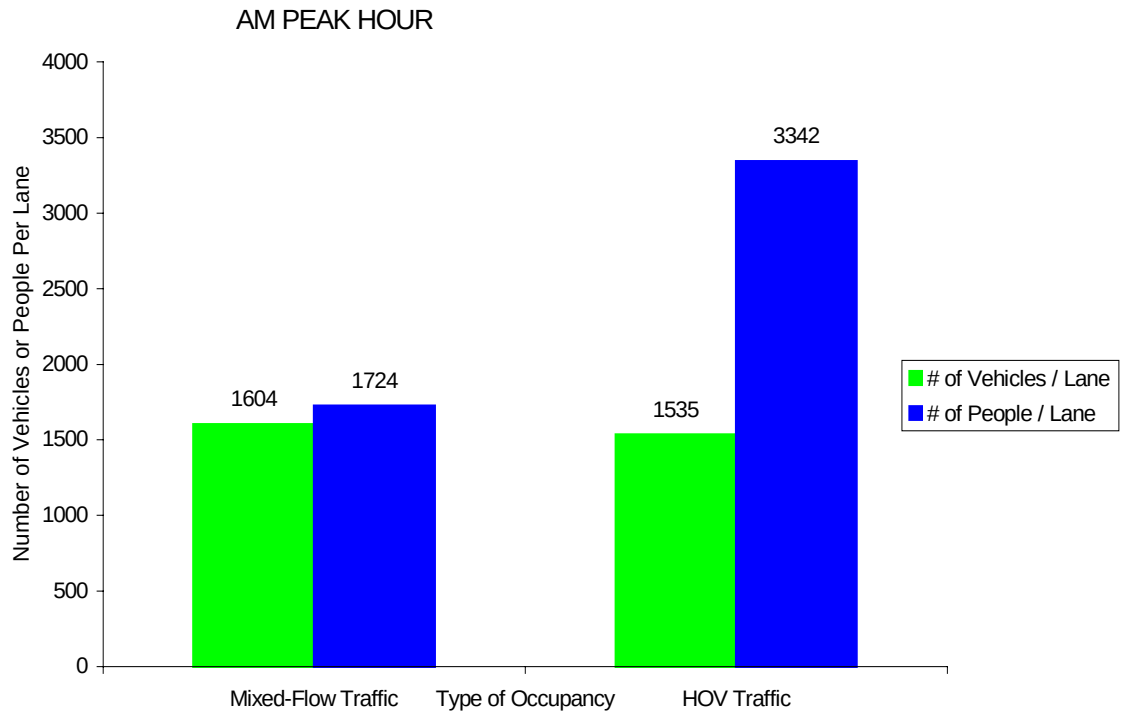
ROUTE 210
FOOTHILL FREEWAY

Project Limits & Length:	FROM ROUTE 134 TO SUNFLOWER AVE.; 18.5 MILES
Date of Opening:	DECEMBER 16, 1993
Cost:	$ 13.2 MILLION
Buffer Width:	1 ft - 3 ft
Current Peak Hr Volume:	1536 VEHICLES @ SECOND ST
Park & Ride Facilities:	6
CHP Enforcement Areas:	2 EAST BOUND, 1 WEST BOUND
Number of Ingress/Egress:	9 EAST BOUND & 10 WEST BOUND

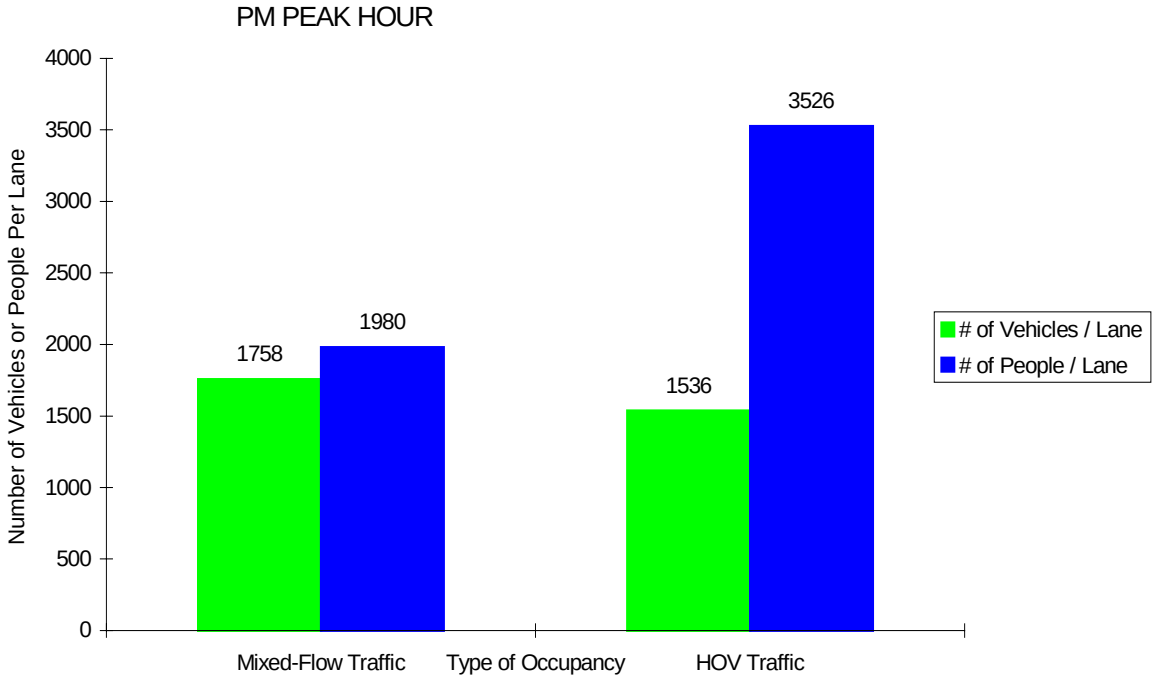
Unique Features:

The 210 Freeway was built within the last two decades. The HOV project was built in 1994. Construction of HOV started as use of the existing median shoulder, but project required removal of shoulder and construction of structural section in the median. Several design features were tested as to start and end of the HOV's, and a direct loop ramp from a city street in Pasadena. The HOV drop ramp at Fair Oaks Avenue was opened on May 30, 1996.

PEAK HOUR COMPARISON



Location: LA-210-W/B @ 2nd St. POC
Date/Time: 07-16-98 / 6:30-7:30 AM



Location: LA-210-E/B @ 2nd St. POC
Date/Time: 06-09-98 / 4:30-5:30 PM

FACT SHEET

ROUTE 405
SAN DIEGO FREEWAY

Project Limits & Length:	FROM BELLFLOWER BLVD TO ROUTE 605	2.2 MILES
	FROM ROUTE 110 TO 120TH STREET	7.7 MILES
	FROM 120TH STREET TO CENTURY BLVD	2.0 MILES
	FROM ROUTE 101 TO ROUTE 5	10.1 MILES
	FROM ORA CO LINE TO ROUTE 710	7.6 MILES
	FROM ROUTE 710 TO ROUTE 110	6.1 MILES
Date of Opening:	FROM BELLFLOWER BLVD TO ROUTE 605	OCT 02, 1993
	FROM ROUTE 110 TO 120TH STREET	APR 08, 1993
	FROM 120TH STREET TO CENTURY BLVD	JAN 1994
	FROM ROUTE 101 TO ROUTE 5	OCT 22, 1996
	FROM ORA CO LINE TO ROUTE 710	FEB 12, 1998
	FROM ROUTE 710 TO ROUTE 110	OCT 08, 1998
Cost:	FROM BELLFLOWER BLVD TO ROUTE 605	$ 4.5 MILLION
	FROM ROUTE 110 TO 120TH STREET	$ 8.3 MILLION
	FROM ROUTE 101 TO ROUTE 5	$15.1 MILLION
	FROM ORA CO LINE TO ROUTE 710	$24.8 MILLION
	FROM ROUTE 710 TO ROUTE 110	$24.2 MILLION
Buffer Width:	1 ft, 11-ft LANES FROM ROUTE 5 TO ROUTE 101	
	1 ft, 11-ft LANES FROM ORA CO LINE TO ROUTE 110	
Current Peak Hr Volume:	1324 VEHICLES @ NORMANDIE	
Park & Ride Facilities:	4	
CHP Enforcement Areas:	FROM ROUTE 105 TO ROUTE 110	1 IN EACH DIRECTION
	FROM ROUTE 5 TO ROUTE 101	1 IN EACH DIRECTION
	FROM ORA CO LINE TO RT 710	1 IN EACH DIRECTION
	FROM ROUTE 710 TO ROUTE 110	1 IN EACH DIRECTION
Number of Ingress/Egress:	FROM ROUTE 105 TO ROUTE 110	5 IN EACH DIRECTION
	FROM ROUTE 5 TO ROUTE 101	3 N/B, 4 S/B
	FROM ORA CO LINE TO RT 710	3 N/B, 2 S/B
	FROM ROUTE 710 TO ROUTE 110	2 IN EACH DIRECTION

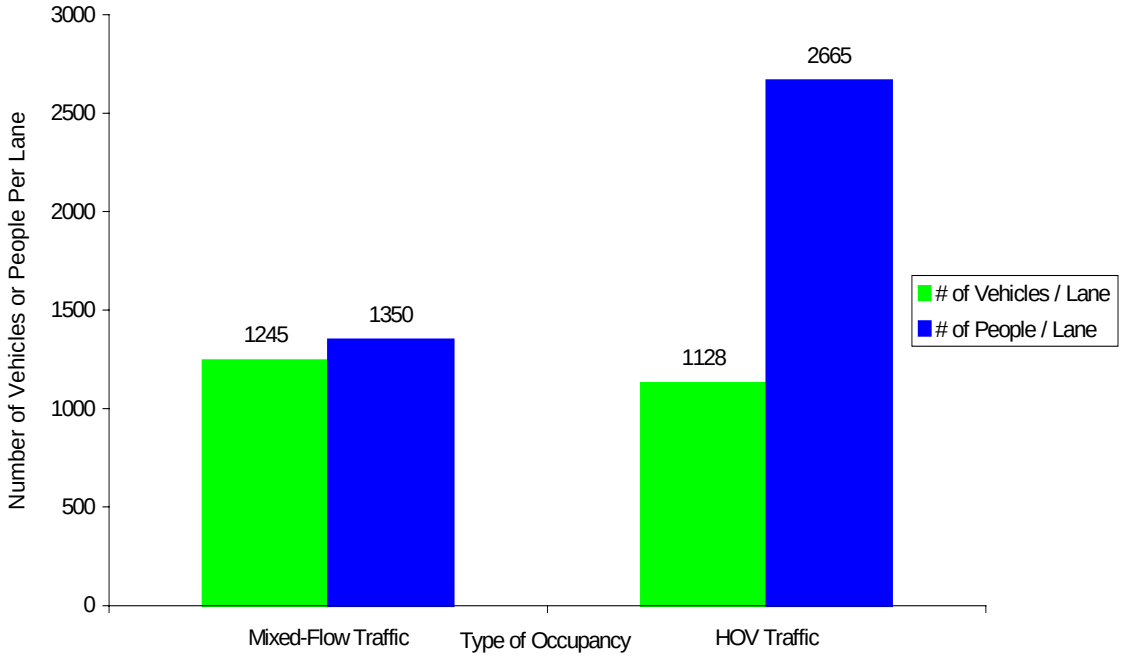
Unique Features:

The HOV facility between 120th Street to Route 110 was opened initially with one ingress/egress location. Two more ingress/egress were approved and constructed in each direction later.

The HOV extension from Route 105 to 120th Street was accomplished by a signing and striping CCO to the Route 105 construction project.

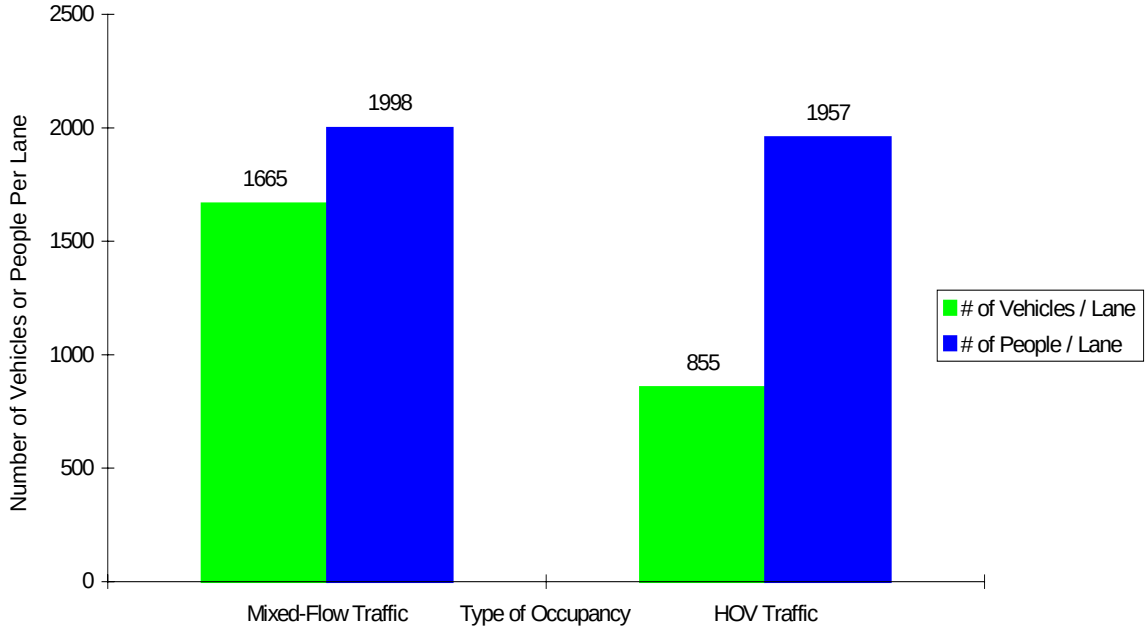
PEAK HOUR COMPARISON

AM PEAK HOUR



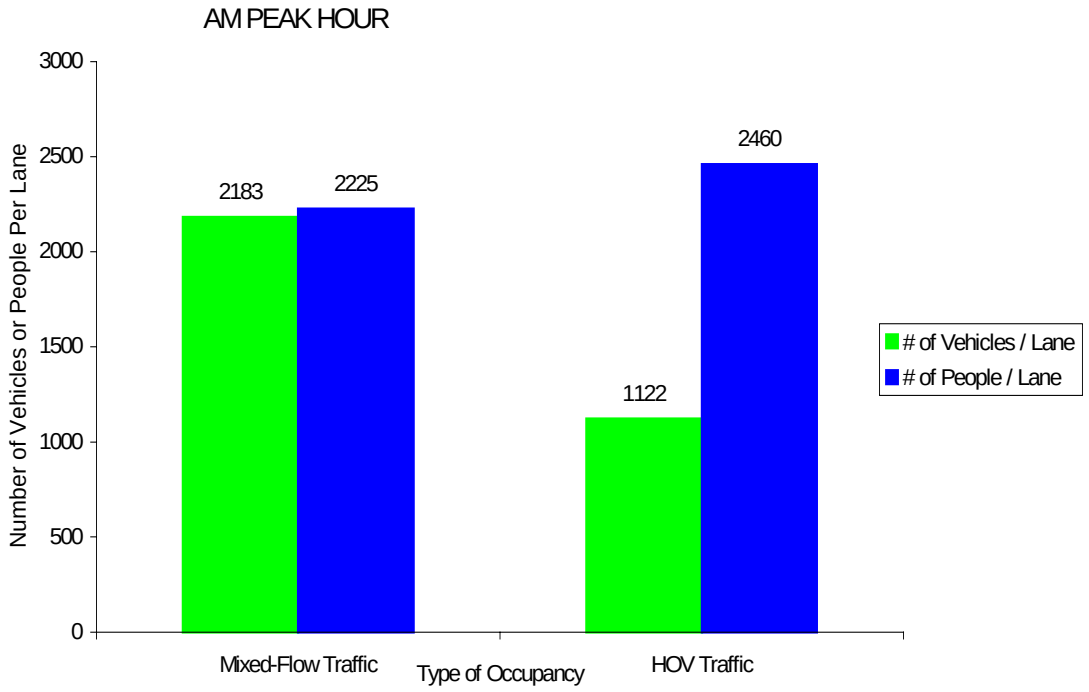
Location: LA-405-S/B @ Burbank Blvd O.C.
Date/Time: 06-18-98 / 6:30-7:30 AM

PM PEAK HOUR

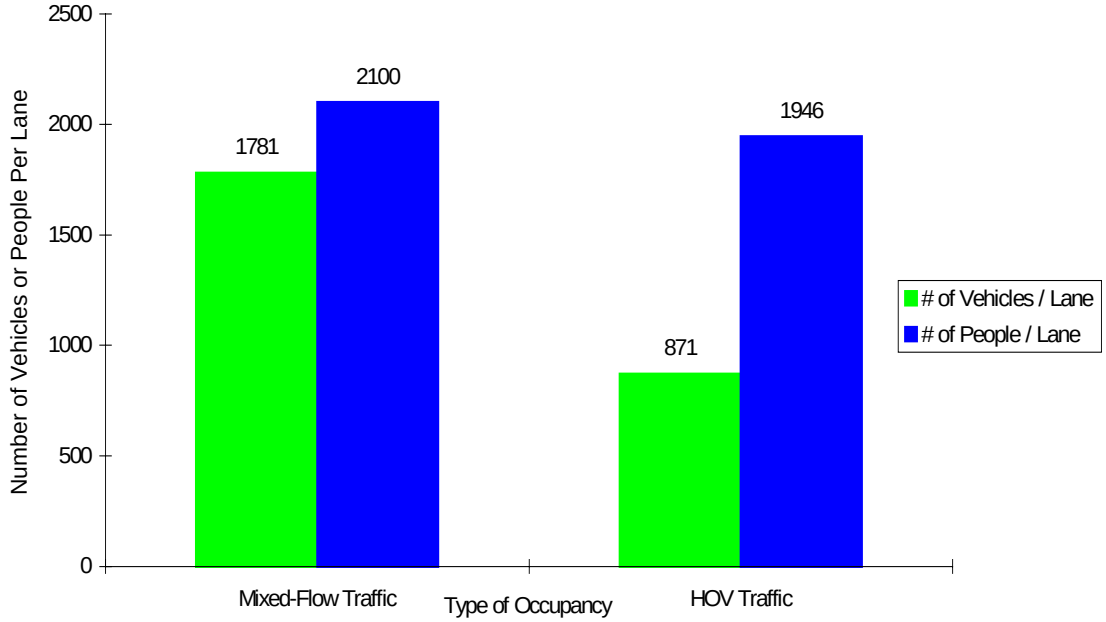


Location: LA-405-N/B @ Burbank Blvd O.C.
Date/Time: 06-25-98 / 4:30-5:30 PM

PEAK HOUR COMPARISON

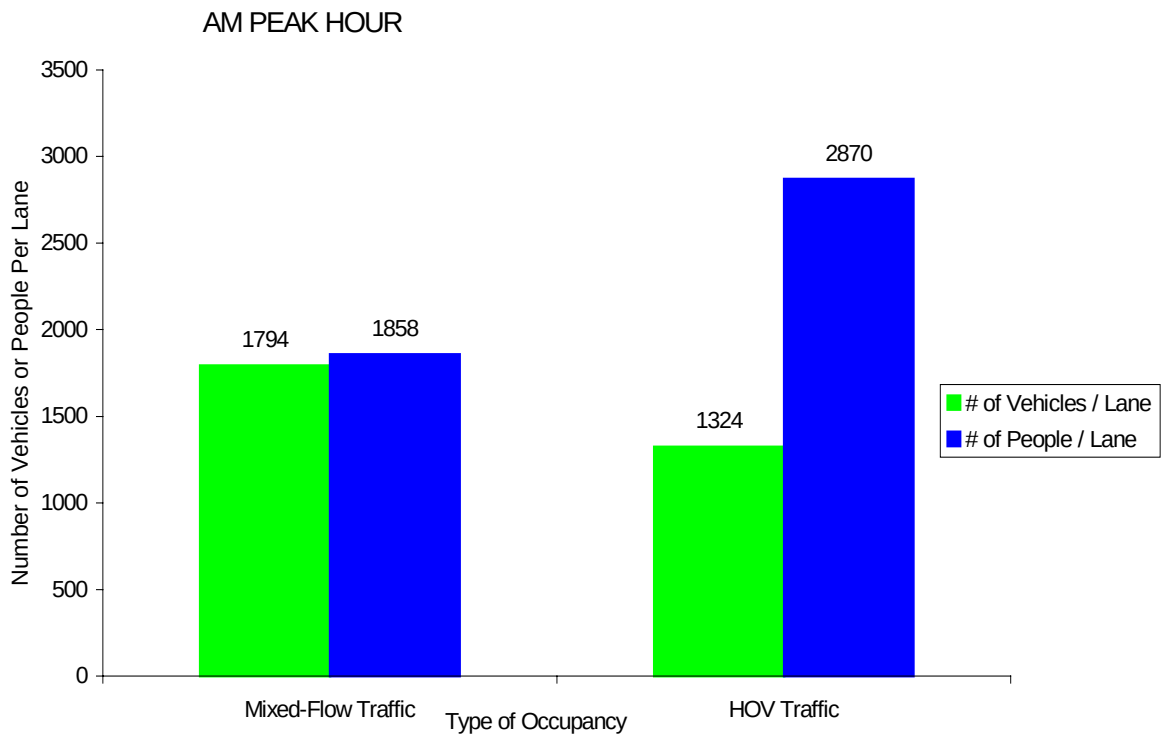


Location: LA-405-N/B @ Temple Ave.
Date/Time: 09-29-98 / 6:30-7:30 AM

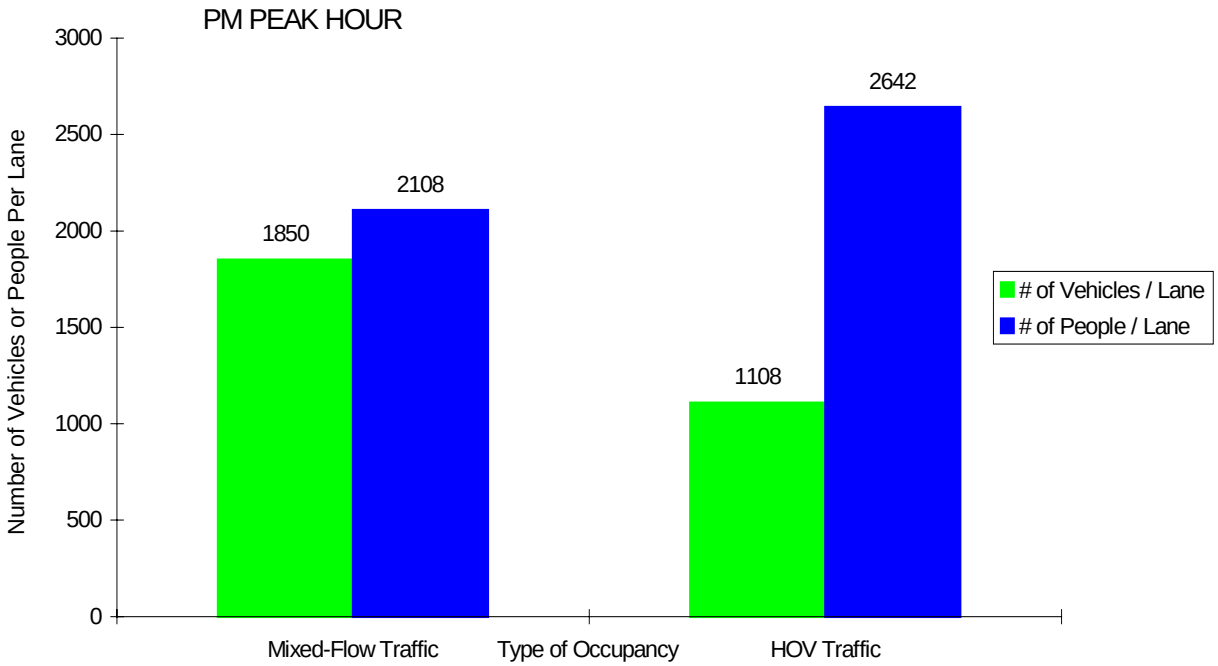


Location: LA-405-S/B @ Temple Ave.
Date/Time: 09-30-98 / 4:15-5:15 PM

PEAK HOUR COMPARISON



Location: LA-405-N/B @ Normandie
Date/Time: 10-15-98 / 6:30-7:30 AM



Location: LA-405-S/B @ Normandie
Date/Time: 10/14-98 / 4:00-5:00 PM

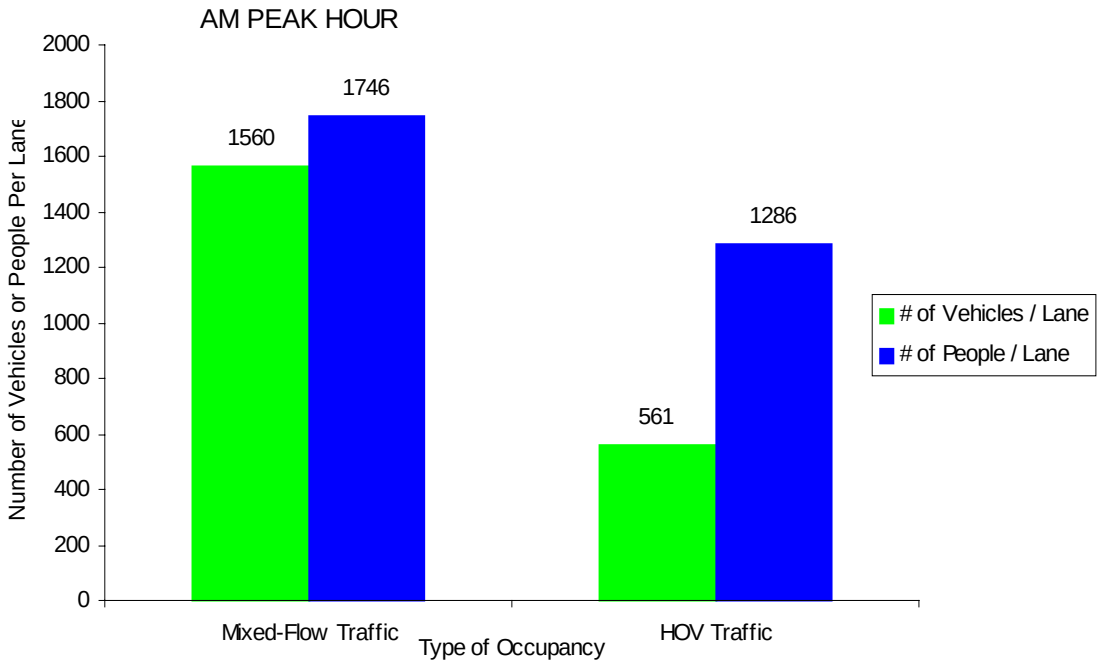
FACT SHEET

ROUTE 605
SAN GABRIEL RIVER FREEWAY

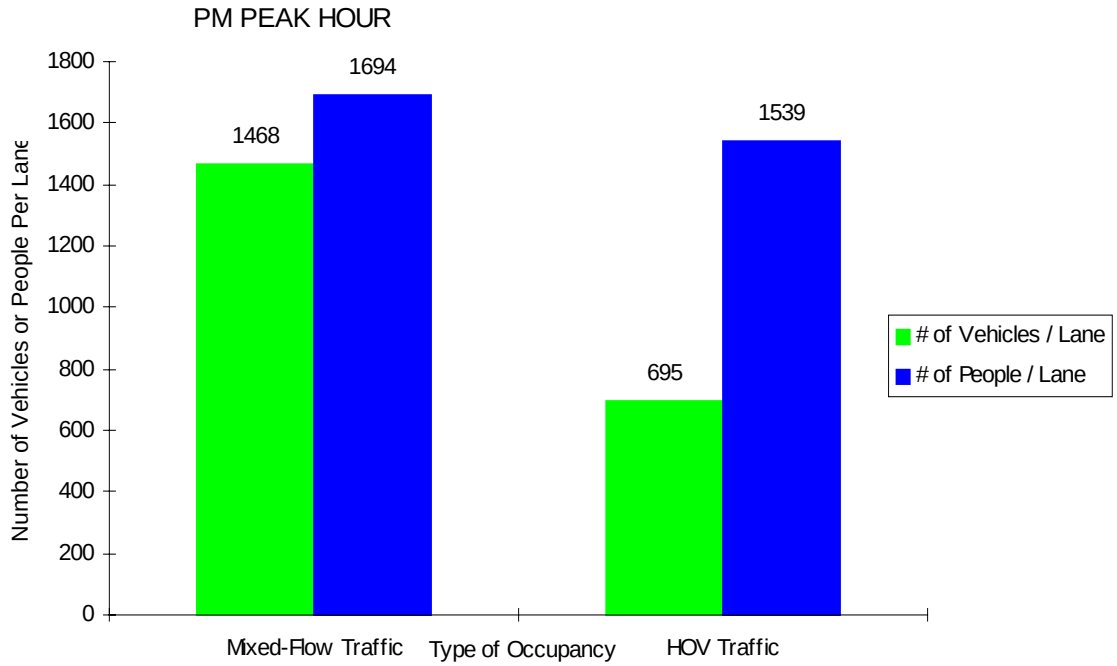
Project Limits & Length:	FROM SOUTH ST. TO TELEGRAPH RD FROM TELEGRAPH RD TO ROUTE 10	7.0 MILES 9.9 MILES
Date of Opening:	FROM SOUTH ST. TO TELEGRAPH RD FROM TELEGRAPH RD TO ROUTE 10	APR 2, 1997 APR 3, 1998
Cost:	FROM SOUTH ST. TO TELEGRAPH RD FROM TELEGRAPH RD TO ROUTE 10	$ 10.8 MILLION $23 MILLION
Buffer Width:	1 ft, 11-ft LANES	
Current Peak Hr Volume:	695 VEHICLES @ BEVERLY BLVD	
Park & Ride Facilities:	N/A	
CHP Enforcement Areas:	FROM TELEGRAPH RD TO RTE 10	1 IN EACH DIRECTION
Number of Ingress/Egress:	FROM SOUTH ST TO TELEGRAPH RD FROM TELEGRAPH RD TO ROUTE 10	3 S/B, 2 N/B 7 S/B, 6 N/B

Unique Features:

PEAK HOUR COMPARISON



Location: LA-605-N/B @ Beverly Blvd.
Date/Time: 05-19-98 / 7:15-8:15 AM



Location: LA-605-S/B @ Beverly Blvd.
Date/Time: 05-14-98 / 4:00-5:00 PM

HOV PROJECTS
SCHEDULED FOR COMPLETION
IN
1999 / 2000

LA-60	23.0/25.4	Brea Canyon Rd. to Rte 57 N	02/99
LA-60	25.4/30.5	Rte 57 N to San Bernardino County Line	02/99
LA-14	33.4/43.3	Sand Canyon to Escondido (S)	09/99